THE

Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

American versus British Horticulture.

WHEN a man goes into a country without understanding its language—merely as a traveller—he is likely to comprehend little of the real character of that country; when he settles in it, and persists in not understanding its language, manners, or customs—and stubbornly adheres to his own, there is little probability of his ever being a contented or successful citizen. In such a country as this, its very spirit of liberty and progress, its freedom from old prejudices, and the boundless life and energy that make the pulses of its true citizens—either native or adopted—beat with health and exultation, only serve to vex and chafe that alien in a strange land, who vainly tries to live in the new world, with all his old-world prejudices and customs.

We are led into this train of reflection by being constantly reminded, as we are in our various journeyings through the country, of the heavy impediment existing—the lion lying in the path of our progress in horticulture, all over the country, in the circumstance that our practical gardening is almost entirely in the hands of foreign gardeners. The statistics of the gardening class, if carefully collected, would, we imagine, show that not three per cent of all the working gardeners in the United States, are either native or naturalised citizens. They are, for the most part, natives of Ireland, with a few Scotchmen, and a still smaller proportion of English and Germans.

We suppose we have had as much to do, for the last sixteen or eighteen years, with the employment of gardeners, as almost any person in America, and we never remember an instance of an American offering himself as a professional gardener. Our own rural workmen confine themselves wholly to the farm, knowing nothing, or next to nothing, of the more refined and careful operations of the garden. We may, therefore, thank foreigners for nearly all the gardening skill that we have in the country, and we are by no means inclined to underrate the value of their labors. Among them there are, as we well know, many most excellent men, who deserve the highest commendations for skill, taste, and adaptation—though, on the other hand, there are a

great many who have been gardeners, (if we may trust their word for it,) to the Duke of ——, and the Marquis of ——, but who would make us pity his grace or his lordship, if we could believe he ever depended on Paddy for any other exotics than potatoes and cabbages.

But taking it for granted that our gardeners are wholly foreigners, and mostly British, they all have the disadvantage of coming to us, even the best educated of them, with their practice wholly *founded upon a climate the very opposite to ours.* Finding how little the "natives" know of their favorite art, and being, therefore, by no means disposed to take advice of them, or unlearn any of their old-world knowledge here, are they not, as a class, placed very much in the condition of the aliens in a foreign country, we have just alluded to, who refuse, for the most part, either to learn its language, or adapt themselves to the institutions of that country? We think so; for in fact, no two languages can be more different than the gardening tongues of England and America. The ugly words of English gardening, are *damp, wet, want of sunshine, canker.* Our bugbears are *drouth, hot sunshine, great stimulus to growth, and blights and diseases resulting from sudden checks.* An English gardener, therefore, is very naturally taught, as soon as he can lisp, to avoid cool and damp aspects, to nestle like a lizard, on the sunny side of south walls, to be perpetually guarding the roots of plants against wet, and continually opening the heads of his trees and shrubs, by thinning out the branches, to let the light in. He raises even his flower beds, to shed off the too abundant rain; trains his fruit trees upon trellises, to expose every leaf to the sunshine, and is continually endeavoring to extract "sunshine from cucumbers," in a climate where nothing grows golden and ripe without coaxing nature's smiles under glass houses!

For theorists, who know little of human nature, it is easy to answer—"well, when British gardeners come to a climate totally different from their own—where sunshine is so plenty that they can raise melons and peaches as eaeily as they once did cauliflowers and gooseberries—why, they will open their eyes to such glaring facts, and alter their practice accordingly." Very good reasoning, indeed. But anybody who knows the effect of habit and education on character, knows that it is as difficult for an Irishman to make due allowance for American sunshine and heat, as for a German to forget sour-krout, or a Yankee to feel an instinctive reverence for royalty. There is a whole lifetime of education, national habit, daily practice, to overcome, and reason seldom has complete sway over the minds of men rather in the habit of practicing a system, than referring to principles, in their every day labors.

Rapid as the progress of horticulture is at the present time in the United States, there can be no doubt that it is immensely retarded by this disadvantage, that all our gardeners have been educated in the school of British horticulture. It is their misfortune, since they have the constant obstacle to contend with, of not understanding the necessities of our climate, and therefore endeavoring to carry out a practice admirably well suited where they learned it—but most ill suited to the country where they are to practice it. It is our misfortune, because we suffer doubly by their mistakes—first, in the needless money they spend in their failures—and second, in the discouragement they

throw upon the growing taste for gardening among us. A gentleman who is himself ignorant of gardening, establishes himself at a country seat. He engages the best gardener he can find. The latter fails in one half that he attempts, and the proprietor, knowing nothing of the reason of the failures, attributes to the difficulties of the thing itself, what should be attributed to the want of knowledge, or experience of the soil and climate, in the gardener.

A case of this kind, which has recently come under our notice, is too striking an illustration not to be worth mentioning here. In one of our large cities south of New-York, where the soil and climate are particularly fine for fruit-growing—where the most delicious peaches, pears, and apricots grow almost as easily as the apple at the north, it was confidently stated to us by several amateurs, that the foreign grape could not be cultivated in vineries there—"several had tried it and failed." We were, of course, as incredulous as if we had been told that the peach would not ripen in Persia, or the fig in Spain. But our incredulity was answered by a promise to show us the next day, that the thing had been well tried.

We were accordingly shown: and the exhibition, as we suspected, amounted to this. The vineries were in all cases placed and treated, in that bright, powerful sunshine, just as they would have been placed and treated in Britain—that is, facing due south, and generally under the shelter of a warm bank. Besides this, not half provision enough was made, either for ventilation or water. The result was perfectly natural. The vines were burned up by excess of light and heat, and starved for want of air and water. We pointed out how the same money, (no small amount, for one of the ranges was 200 feet long,) applied in building a span-roofed house, on a perfectly open exposure, and running on a *north and south*, instead of an east and west line, and treated by a person who would open his eyes to the fact, that he was no longer gardening in the old, but the new world—would have given *tons* of grapes, where only pounds had been obtained.

The same thing is seen on a smaller scale, in almost every fruit garden that is laid out. Tender fruit trees are planted on the south side of fences or walls, for sun, when they ought always to be put on the north, for shade; and foliage is constantly thinned out, to let the sun in to the fruit, when it ought to be encouraged to grow thicker, to protect it from the solar rays.*

But, in fact, the whole routine of practice in American and British horticulture, is, and must be essentially different. We give to Boston, Salem, and the eastern cities, the credit of bearing off the palm of horticultural skill; and we must not conceal the fact, that the superiority of the fruits and flowers there, in a climate more unfavorable than that of the middle states, has been owing, not to the superiority of the foreign gardeners which they employ—but to the greater knowledge and interest in horticulture taken there by the proprietors of gardens, themselves. There is really a native school of horticulture about Boston, and even foreign gardeners there, are obliged to yield to its influence.

* If we were asked to say what practice, founded on *principle*, had been most beneficially introduced into our horticulture—we should answer *mulching*—mulching suggested by the need of moisture in our dry climate, and the difficulty of preserving it about the roots of plants.

We have spoken out our thoughts on this subject plainly, in the hope of benefitting both gardeners and employers among us. Every right-minded, and intelligent foreign gardener, will agree with us in deploring the ignorance of many of his brethren, and we hope will, by his influence and example, help to banish it. The evil we complain of has grown to be a very serious one, and it can only be cured by continually urging upon gardeners that British horticulture will not suit America, without great modification, and by continually insisting upon employers learning for themselves, the principles of gardening as it *must* be practiced, to obtain any good results. This sowing good seed, and gathering tares, is an insult to Providence, in a country that, in its soil and climate, invites a whole population to a feast of Flora and Pomona.

A NOTE ON VINE CULTURE.

BY WILLIAM CHORLTON, STATEN-ISLAND, N. Y.

Dear Sir—I suspect your correspondent, H. B., has got the prying faculties very largely developed, as he inquires so *very particularly* about the "*two stoves*" which were used in the cold vinery at this place, in the earlier part of last season; and as persons of this description are apt to be uneasy until their wishes are gratified, I hasten to relieve him of his unpleasant anxiety. As I have no secrets in my practical working, and do not wish to conceal any minutiae in my operations, that will be of service in disseminating useful information, I feel obliged to him for reminding me of an omission, (if it can be construed into such a form,) but the matter was of so trifling a character, that I did not think it of sufficient importance in the detailed account sent you. When writing that account, I had embodied a few general remarks on cold graperies, in which were mentioned explicitly, these two stoves; but as the article seemed swelled out into an inconvenient length, these remarks were extracted from it, with the intention of sending them at a future opportunity, thinking that your readers, who he says "are interested in the matter," might be more benefitted by it in that form—and as I do not like to occupy at the present too much of your valuable space—I will extract the passage, (with your permission,) from manuscript in which the *two stoves* are mentioned, and which runs as follows:

"I would remark, that however long we may try to retard vegetation, the buds of the earlier kinds will begin to burst before the occasional frosty nights and north-east storms of the latter part of April, are past, and for safety, a temporary heating apparatus of some kind will be of service at this time, merely to be ready in case of need. To answer this purpose, there were put up in the house at this place, two common stoves, which enabled me to raise the temperature five or six degrees during several frosty nights, and also once in the day, when there was snow and frosty wind all day. It would also be of service in cloudy, damp weather, during November and December, to dry the air of the house, and prevent mouldiness in the grapes. At no other is it required, as we have natural heat and light sufficient, if made good use of, to ripen the grape perfectly."

These *two stoves* stood in the house about three weeks, but were not lighted more than six times during that time, and only when the thermometer outside sunk to the freezing point; they were only used once in the day time, when there was a severe snow storm, with frosty wind, and it was only to keep the frost from killing the bursting buds, that the idea

of having them was suggested. There was not consumed more than 150 pounds of coal, and as I employ my time as usefully as possible, and have no opportunity to trifle, I send H. B. the dimensions of the house in which 150 pounds of coal was consumed: it is 74 feet long, 20 feet wide, and 14 feet high, with glass on all sides, and ask him to be kind enough to work out the mathematical problem of how far it will give "artificial heat, and to what degree on an average." That he may not err in his calculations, he must allow for the exposed situation of the house, which, if I am not greatly mistaken, he is aware of.

As to the point at issue, viz—cutting ripe grapes on the second of August, (not, as he erroneously states, the first,) without artificial heat, it is the most simple part of the business; and it strikes me forcibly that he writes without much experience, or he would well know that the kinds mentioned, (Malvasia, and Joslin's St. Albans,) may be ripened so early without any fire heat whatever. Those same grapes were ready to cut a week earlier, but as my employer was from home at the time, they were reserved till his return; so that allowing for the six nights and one day that the stoves were lighted, the argument will stand about "zero" in his favor. The season in which the vines were planted, 1850, no stoves were used, and I cut several bunches from tubs planted the same spring, the latter part of July. There has not been either, any fire heat of any kind, this season, and the vines are growing very vigorous, and many have shown from fifty to over sixty bunches, generally speaking, stronger than last year. Hoping I have explained all to the satisfaction of your correspondent, I am yours respectfully, WM. CHORLTON,

Gardener to J. C. Green, Esq., New-Brighton, Staten-Island.

May 1, 1852.

A LIQUID FERTILIZER FOR CHOICE PLANTS.

BY AN AMATEUR, NEW-YORK.

DEAR SIR—I am confident that there are many of your lady readers, and perhaps many of the other sex, who are puzzed among the many *new manures*, and having failed with some, and injured their plants with others, they end by raising only sickly and meagre plants, when they might have them presenting a luxuriant and satisfactory appearance—with leaves of the darkest green, and flowers or fruit of double the usual size.

Having made a trial for three years past, with a *perfectly safe and satisfactory liquid fertilizer*, which appears to suit all kinds of vegetation, which is clean and easily applied, and procured without difficulty, in any town, I confidently recommend it to your readers, especially those who wish to give especial pains to, and get uncommon results from, certain favorite plants—either in pots, or in the open garden—plants whose roots are within such a moderate compass, that they can be reached two or three times a week, if not oftener by the watering-pot.

This liquid fertilizer is made by *dissolving half an ounce of sulphate of ammonia in a gallon of water.*

Nothing so good can be cheaper, and the substance may be obtained at almost any apothecary's.

Now for the mode of using it. I may say, at the outset, that weak as this solution appears to be, and is, if plants are watered with it daily, they will die—just as certainly as a man will who drinks nothing but pure brandy.

The right way to apply it is to water the plant with this solution *every sixth time;* the other five times with plain water.

The proportion is so simple, and the mode of using it so easy to understand, that the most ignorant person cannot possibly blunder about it—*if he can count six.* If we prepare the solution occasionally, and water our plants in pots *every Saturday*, with this ammonia water, and all the rest of the time with plain water, we shall have a safe rule.

The result will, I am sure, both delight and surprise every person who will make a trial of it. It has become such an indispensable thing with me, that I regularly mix a barrel of it every Friday, and use it on Saturday, upon any plants that I particularly wish to invigorate and stimulate. I do not know that I have seen a single instance of its disagreeing with any plant—ammonia being the universal food of vegetation. Of course, the more rapid growing plants—those with foliage that perspire a great deal, are most strikingly benefitted by it. Of course, also, *plants* that are *at rest*, or not in a growing state, should not be fed with it; but any plant that is about starting, or *is actually in a growing state*, will not fail to be wonderfully improved by it. Many plants that have fallen into a sickly state by reason of poor, or worn out soil, will, usually, in the course of a month, take quite another aspect, and begin to develope rich, dark green foliage. I will enumerate some of the things that I have had great success with.

Strawberries.—Beds of indifferent appearance at the opening of the spring, last season, after being watered four times with this solution, grew very luxuriantly, and bore a crop of remarkably fine fruit. This year I have repeated the experiment on half of every bed; both foliage and blossoms are as large again on the watered, as on the unwatered bed; and by way of comparison, I have watered some with plain water also—and find, though rather benefitted, (for the strawberry loves water,) they have none of the extra depth of verdure and luxuriance of those watered with the ammonia.

Early Peas.—At least a week earlier than those not watered, and much stronger in leaf and pod.

Fuchsias.—A surprising effect is produced on this plant, which, with the aid of ammonia water, will grow in very small pots, with a depth of verdure, a luxuriance, and a profusion and brilliancy of bloom, that I have never seen equalled. Old and stunted plants are directly invigorated by it.

Dwarf Pears.—Some sickly trees, that I have given the best attention for three years previously, without being able to get either good fruit, or healthy foliage, after being watered four times with the solution—of course with the usual intermediate supply of common water—became perfectly healthy and luxuriant, and have ever since, (two years,) remained so.

Dahlias—Which I have never succeeded well with before, have done beautifully with me since, flowering most abundantly and brilliantly, when watered in this way. In all out-of-door plants, if mulching is used, only half the quantity of plain water is needed. For plants in pots, I consider it invaluable; and gardeners who wish to raise specimen plants for exhibition, will find this mode of watering them *every sixth time* with the solution, to produce a perfection of growth not to be surpassed in any other way.

Yours truly, AN AMATEUR.

New-York, May 10, 1852.

We endorse our correspondent's testimony to the value of the solution of sulphate of ammonia, applied in the manner he directs, having witnessed its satisfactory effects. ED.

EFFECTS OF THE SEVERE WINTER ON RARE EVERGREENS.

BY HENRY WINTHROP SARGENT, FISHKILL LANDING, N. Y.

My Dear Sir—In compliance with your request to know the effect of the past severe winter upon the new evergreens, I give you the following result of my examination, first premising that nearly everything was entirely uncovered on the 26th December, when the thermometer was down to 13° *below* zero, and that from and after that time, until the 30th March, they were more or less protected by hemlock and cedar boughs, tied loosely upon three sides—that to the north being generally exposed.

Abies Smithiana—(Himmalayan Spruce)—Leaves either destroyed, or quite brown, except on the lower branches, which, being more or less protected by snow, are quite green; buds perfect; will no doubt prove quite hardy. I should say young plants were but little if any more tender, than young Deodars.

Abies Douglasii—(the Deodar Cedar)—Somewhat burnt—not as much as *A. Smithiana.*

A. Menziesii—Apparently uninjured and quite hardy. Color faded a little, like our native Arborvitæ, which the spring will soon restore.

Pinus Pinaster—Sadly cut up; color of brick dust. A plant ten feet high, *unprotected*, except that the 11 o'clock sun is broken off; perfectly green and uninjured.

Pinus Cembra—(Stone Pine)—Uninjured.

Pinus Excelsa—Uninjured—quite as hardy, I should say, as our White Pine.

Pinus Pumilis—Uninjured; hardy.

Pinus Ponderosa—Greener, and even hardier than the P. Excelsa, and I think much finer; in fact I esteem this rapid growing pine, from the banks of the Columbia river, as in beauty, next to the Cryptomeria—with a deep green, and fine long wand-like foliage, of six or seven inches.

Pinus Sabiniana—Badly cut up. I should think if grown for several years on the north side of an evergreen wood, that it would stand, and become a magnificent tree. It has a foliage as long and as delicate as *P. Ponderosa*, but lighter green, more like the color of the Deodar.

Pinus Gerardiana—Hardy.

Pinus Lambertiana—Hardy. I can see but little difference between this and our White Pine, (*P. Strobus.*)

Pinus Maretta, or Maritima—Identical, it seems to me, with the Pinus Pinaster, and quite as much cut up.

Pinus Insignis—Hopeless; too tender for this latitude.

Pinus Filifolia—Hopeless; (but beautiful.)

Pinus Sylvestris—Of course, quite hardy.

Pinus Austriaca—Quite hardy, and very valuable.

Picea Cephalonica—(Cephalonian Fir)—Uninjured, and very handsome.

P. Pinsasso—(M't. Atlas Fir)—Uninjured, and very handsome.

P. Webbiana—(Webb's Silver Fir)—Quite hardy.

P. Pindrow—Hardy.

P. Nobilis—(Noble Silver Fir)—Hardy.

P. Pectriata—(European Silver Fir)—Hardy and beautiful. And now for the queen of evergreens, the

Cryptomeria Japonica—I am happy to say, that notwithstanding the thermometer being

down once to 13° and twice I think to 12°, she has thrown off her cedar overcoat, and come out as bright, and as vivid, as the Arborvitæs in May, and I have no doubt will be coaxed into hardiness, unless, as I think you once suggested, my most successful specimen may have been worked upon some peculiarly hardy stock, or influenced by some fortunate situation, and consequently is not a fair instance of its hardiness. With other trees I have not been equally successful—but this particular one, within ten feet of a Deodar, is entirely uninjured, while the Deodar, with some slight covering, has lost all its leaves. [Your Cryptomeria is no doubt on its own root—most of the tender ones are grafted. ED.]

Araucaria Imbricata—I doubt if anything can be made of this, as a general rule—mine is four and a half feet high, and has survived three winters—but it has just now very much the appearance of having been made of Russia leather. Planted in a well drained and gravelly soil, well mixed with river sand, and on the north side of a wood, it may succeed. It seems peculiarly impatient of moisture.

Cedrus Libani—Generally hardy; this year a good deal cut up.

Cedrus Deodara—Small plants have lost their leaves; a plant eleven feet high, on the west side of my house, perfectly green; same size on the east, somewhat browned, showing conclusively that the sun, and not the cold, is our enemy.

Cedrus Argentea—About as hardy as C. Libani; may be more so when longer established here.

Juniperus Alpina—Hardy.
Hibernica—Hardy.
Communis Pendula—*Beautiful* and hardy.
Recurva—I think destroyed.
Encordi—Cut badly.
Tamariscifolia—Hardy
Excelsa—Hardy.
Bedfordiana—Pretty and hardy.

Taxodium Sempervirens—Destroyed—though I saw a tree bearing this name and appearance in Denmark, quite hardy, where peach trees would not live.

Taxus—(*Common English Yew*)—Hardy—though cut up this winter.
Horizontalis—Injured; but I think will stand.

Thuja Filiformis—(*weeping*)—Beautifully graceful, and quite hardy.
Tartarica—Hardy.
Plicata—Hardy.

New Funebral Cypress—I think will prove quite hardy, though the plants are very small.

Torreya Taxifolia—(the Florida Yew)—Undoubtedly hardy, though a little touched.

The English Evergreen Savin, has stood well. Golden and Silver leaved more tender. Gold and Silver Yews I think hardy.

Of the *Rhododendrons*—the *Catawbiense* and its varieties, especially the Belgic hybrids, have wintered without any protection, perfectly well. I understand from Mr. PARSONS, of Flushing, that the *Cunninghamia Sinensis*, an evergreen resembling the Araucaria, but more graceful, and denser in foliage, stands our climate with entire success.

In recapitulation—I consider as *fairly hardy*, (by which I mean by the time they are three to five years old,) the following trees.

Abies—Smithiana,
Douglasii,
Menziesii.
Piceas—Cephalonica,
Pinsasso,
Webbiana,
Pindrow,
Nobilis.
Pinus—Pinaster,
Cembra,
Excelsa,
Pumilis,
Ponderosa,
Lambertiana,
Gerardiana,
Austriacus,
Sylvestris,
Pinus—Maritima,
Pendula.
Juniperus—Tamariscifolia,
Alpina,
Hibernica,
Excelsa.
Thuja—Filiformis,
Bedfordiana,
Plicata,
Tartarica.
Taxus—Communis,
Horizontalis.
Cedrus—Lebani,
Deodara,
Argentea.
Cryptomeria—*Torreya*.
Probably, the New Funebral Cypress.

I should also add, that my Cedars of Lebanon and Deodars have been planted five years, and have stood *green, without protection*, until this remarkable winter. My *Auricarias* are four years planted and hardy. Everything else is still small, having been out but two years; if they had been planted several years longer, no doubt they would have battled this winter more successfully. To show you the extent of the cold, an entire orchard of Dwarf Pears, 102 in number, on quince, planted last fall, was all destroyed. Even many of the eyes of the grapevines in my vinery, are injured. Yours very truly,

HENRY WINTHROP SARGENT.

Wodenethe, April 19, 1852.

REMARKS.—We are much obliged by the foregoing notes, not only because Mr. SARGENT's grounds contain one of the richest collections of evergreens in the country, but also because the results may be assumed to be those of the latitude of New-York, and the middle states generally.

The past winter has been the most severe upon vegetation, of any known in 40 years, except that of 1835–6. And though it should not be taken as having anything to do with the normal temperature of any portion of the Union—since we, in the middle states, have had the frosts of Canada, and our states bordering on the Gulf of Mexico, have felt the ice and snow usual to the middle states—it is very interesting, as a test of downright hardiness. Any tree or plant that has stood the past winter, may be considered as past all doubt, hardy forever afterward.

On the other hand, it does not follow that many fine trees that, to use our correspondent's expressive phrase, were only "badly cut up," should be abandoned as tender. Evergreens are remarkably susceptible to severe cold, when they have been lately *transplanted*, say only a year or two before it takes place. As a proof of this, we may mention, that of several hundred young hemlocks, two or three feet high, planted in this place last season, and which had apparently taken root firmly, full one quarter are now either partly or wholly dead—solely owing to the effect of the severe cold on one of the hardiest of all native trees, *before the roots were established*. The same thing applies more strictly to rare evergreens turned out of *pots*, (as most of the rare imported evergreens are.) If, in planting these in the open border, the planter neglects to unwind the roots from the ball, and stretch them out, so that they shall take hold of the surrounding soil fully, the

young tree will often die in a severe winter, just as if the pot itself, with the roots in it, had been exposed—when if the roots were disturbed, and stretched out, it would have stood very well. Hence, many persons have lost specimens of that most beautiful evergreen, the Deodar, the past winter, and consider it hopelessly tender—while in fact, the Deodar well rooted, in dry soil, has stood perfectly well in several parts of the country, where the thermometer has fallen as low 12° below zero. To prove this still more conclusively, we need only refer to the Cedar of Lebanon. Small trees of this, turned out of pots one or two years ago, are nearly or quite destroyed. A specimen in our grounds, five feet high, and five or six years planted, is only slightly browned—not at all injured. A tree 60 feet high, near New-York, (where the thermometer has fallen to 10° below zero,) is not in the least injured.

We mention these facts to show that where a tree has not been killed—only injured badly—by the late severe winter, it should by no means be abandoned in despair by arboriculturists.

At Washington, the Deodar has not been at all injured. At Philadelphia, its foliage and terminal shoots have been browned and injured—but as this tree makes even a new leader without difficulty, it will soon recover. In Mr. BUIST'S specimen grounds, below Philadelphia, we noticed that a plant of the Cryptomeria four or five feet high, entirely exposed, was quite uninjured, thus proving itself hardier than most of the tender evergreens. We believe wherever the Cryptomeria *seedlings* have been planted, this has been found to be the case—where it has been worked on other stocks, it has suffered.

Perhaps the handsomest of all the new evergreen firs that have proved quite hardy, (it is entirely uninjured in our grounds,) is the Himmalayan Spruce, (*Abies Smithiana.*) Its general habit is that of the Norway Spruce—but much finer—more luxuriant—more graceful—more vigorous. The Florida Yew, (*Torreya,*) is another very handsome tree, quite hardy about New-York. The Cephalonian Fir is very hardy everywhere—and most of the foreign Silver Firs are found great acquisitions—the common European Silver Fir being in every way far superior to our Balsam Fir.

The *mildest* climate of the northern states is unquestionably that of Newport, R. I. The thermometer fell to zero but three days last winter—and only for a few hours was one below. (By a reference to our last number, page 243, it will be seen that it fell to 2° below in the upper part of *Georgia*—usually an almost tropical state.) In a visit recently to Newport, we observed in the grounds of DELANCY KANE, Esq., which are quite rich in rare species, that *Araucaria Imbricata,* (the most striking of all evergreens,) which has usually been killed all over the northern states, had stood very well there. In another garden in Newport, a specimen three feet high was perfectly uninjured, without the least protection. Cedrus Deodara, six feet high, was perfectly green in Mr. KANE'S grounds, and Portugal Laurels, and English Laurels—sadly injured at Baltimore, were in sound condition there. Cryptomeria also quite hardy. ED.

MICROSCOPIC INSECTS THE CAUSE OF PEAR BLIGHT.

BY PROFESSOR TURNER, JACKSONVILLE, ILL.

MR. DOWNING—Dear Sir: I am more and more convinced of the utter uselessness of talking about "blight." *What is blight?* Simply the death of certain portions of a tree, in the only way they can die of any sort of sudden disease, while in full sap in warm weather. Any poison or affection that kills in hot weather, will of course, produce blight. However different the *fatal cause*, the sequali, from the laws of vegetation, must be the same. There may be minute differences, but the general phenomena must be similar; and whether the cause is in the root, trunk, or branches, the tree will attempt to throw it off through the externals and extremities, *and there*, to the careless observer, the disease and the death, (or blight, as it is called,) will first appear, though it may have existed for months, or even years, in other parts of the tree, unobserved.

Again, allow me to say, that in our present state of knowledge, the world is but illy prepared to talk or to hear about, either the infinitely small, or infinitely great. We shall hardly be prepared to contemplate the created universe as it is, till we begin to regard with more attention, the infinite above and below us—and to deem it possible that even man may crush microcosms of worlds beneath his puny tread, as the footsteps of Deity scatter stars and suns above and around us.

I have made these remarks with reference to that form of Pear, Quince, and Apple blight, which so fearfully appeared in this state last season for the first time, and to which I alluded in my last paper, as probably caused by a microscopic insect. I am now both sad and rejoiced, to inform you that this is no longer a probability, but a certainty. Rejoiced at the fact of knowing it—but sad at the appalling nature of the fact itself, as you will see as I progress in my statement—which I hasten to communicate to the public—knowing how important it is that all eyes should at once be turned to the true cause, as the only hope of any relief—at least so far as our pears are concerned. I shall present, at first, no theory, but simply state facts which any one can verify at his leisure.

1. Examine the trunks and branches of apples, pears, and quinces. There will be seen little holes in the bark, sometimes two or three together, which look like the pick of an awl. These will more usually be found near the origin of a branch or sprout—and much more frequently to be seen on the apple than the pear, for reasons which will be stated.

Take a knife and cut into these perforations, and you will find the bark dead to the wood, and giving evident signs of poison, or other influence, differing from a similar wound with an awl or simple puncture, as you may learn by making the latter side by side with the former.

2. Sometime in the month of August, take out one of these pieces of punctured bark, in which the puncture has been *recently made*, (as the old ones were used and abondoned the year before,) and lay it in a bright sun-light, under a powerful compound solar microscope, and you will not cut many before you will discover an infinitessimal insect, somewhat resembling in legs, shape, and color, a common "sow-bug," as they are here called, running about between the fibres of the bark, much as a pig runs from side to side through the fence, to avoid the scorching heat of the sun. This discovery I made last August, as stated in a former paper, but was still not quite certain whether this animalculæ was a cause or consequence of the blight. But the discoveries of this month, I think, fully decide that question.

I have been watching all winter for the results of this insect, or for its modes of action and transformation; But with the most careful search could discover nothing, and had in fact, almost given up in despair, when one day, by accident, I found it lay *horribly* apparent, right before my eyes—and that I had seen it a thousand times before without knowing it. I will, therefore, prescribe a third experiment in the process.

3. Approach that young pear tree, so healthy, thrifty, and clean—not a blemish can be found on it. Its growth, though excessive (it may be,) appears perfectly sound and good—and even the last cold winter, of 20 degrees below zero, has evidently had no power to injure in the least its glossy trunk, its bark, or even its terminal buds. All is in the brightness of a joyous and storm-defying youth. You, of course, observe little white specks on all parts of the bright brown wood—for such is its nature. But observe again; some of those little whitish specks are larger than the rest, and have the appearance of a mite of mould on the surface of the bark. Well, what strange thing is a mite of mould on a large tree? But there are more, and more, and more, and the longer you look, the more you find. Take now the point of your knife, and press one of these little insignificant patches of mould, and listen closely—you hear a crash under the knife. Ha! you have crushed a little world. You can, even with the naked eye, see its brown blood flow beneath the relentless steel, and though it be a world of pear tree fiends, hostile to them and to you, you will find little cause to exult, when you see how many more such worlds remain unconquered around you. Now take one of these little specks and peel it up from the bark, and apply your microscope, and you will find your speck of mould a most delicate and finely wrought texture of silk, spread as an impervious awning over a great multitude of little reddish brown eggs, of oblong form, and of beautifully smooth regular shape and texture, still so small that scores of them are safely packed under this speck, this particle of a silken coccoon; and even on white paper—to the naked eye are scarcely visible as dust—though most beautifully apparent through the microscope.

4. But once more return to your tree; examine with a sharp knife and a microscope, and you will find on the pear, wherever the eggs are sound, and nearly ready to hatch, the bark, sometimes for one-fourth of an inch round the nidus, is already, (April 1, 1852,) turned a reddish brown, in some cases quite down to the wood, and with every accession of spring warmth, it is constantly extending. These eggs, themselves, seem to be a deadly virus to the bark and sap, especially of the pear tree; and in many cases there is a hole eaten down from the eggs directly into the bark, quite to the wood of the tree, bearing all around it, the evidences of poisonous influence. Whether the parent insect emerged from these holes in the bark, or retreated into the tree through them after depositing its eggs, or simply scarified it for the benefit of its future progeny, cannot be told without future research. Where the branch is not killed, as usually happens on the apple, these holes remain, after all other appearances are gone, still visible to the naked eye. All these manifestations are more usually found near a bud or branch, a short crotch in a limb, or at the points where the bark is changing from smooth to rough, as if partial to places where there is some interruption of flow, or fulness of sap; though frequently on all parts of a peculiarly vigorous growing shoot or limb, where, indeed, the conditions would be much the same.

Now that this is *the cause*, not the consequence, of the blight which appeared here last season, any man that has these eyes may see; and numbers of intelligent men have examined my trees, (of which I have several hundred,) with me, and all concur with me in this opinion. But this blight bears no more analogy to the blight which I described a few years ago as the "sun-blight," than the worms which ate King Herod's bowels bear to

a scalded leg—though a blight—that is death, came of both alike. I do not know that this insect and the consequent blight, has appeared anywhere else except here—if so, it is now easily found, or at least traces of it. If not wait a little—don't complain—you know nothing about pear blight from any other form of it. In the language of BURKE, "all the horrors of *blight* before known or heard of, were mercy to this new havoc."

Do you ask why, if the cause is as above stated, what so appalling? Why not destroy the insect at once? Destroy him! the villian!! Sweep down the stars—count out the sands—rehearse all your arithmetic, make millions of billions your unit figure, and there begin your computation, and when you have thus trained your mind to the infinite in number, pray tell me how an insect that could tramp by the thousand through the very bones of your flesh, without disturbing your slumber, can be waylaid and destroyed? If the Infinite One does not work for us, with the periodical changes of all-devouring cold or heat, or those other means by which he checks the career of these infinitissima races, I confess I know not what can be done. What soap, ley, ashes, lime, copperas, sulphur, plaster, tobacco, spirits turpentine, salt, coal-tar, charcoal, assafœtada, and a whole apothecary shop of other drugs can do, I have already tried upon them—and I despair—for unless the season should in some way, by its peculiarities, bring relief, I cannot believe after all my trouble, that my pear trees will one of them exist five years—if, indeed, one year hence, though to a careless observer, not a finer, thriftier lot of trees can be found in the country, than they now are; some shoots grew eight feet long last year, perfectly healthy and sound. True, the washing with soap and tobacco water, and putting coal ashes around the roots, last August, invigorated the trees, and seemed to check the disease for the time, and has evidently kept the insect from depositing its eggs on the parts washed; but there was ground enough escaped the wash for more millions of eggs, now visible in their effects, than there are people on the globe; and what can I do—the covering of the eggs will not admit water or caustic, unless strong enough to kill the tree, I fear, and besides, who can wash all parts of a large tree all over. That peeling off the eggs, and a small slice of the bark, will stop it, I know by trial; but who can spend time to do it where it has got fairly hold, as it has with our trees here; and if one man does it, will his neighbors do the same. I see but these possible courses; either to throw something into the top of the tree, as salt water, or quick-lime when the dew is on, in fine powder, just as the insects are hatching out; or throwing something offensive into the circulation of the tree, by absorption at the root from the earth; or by a strong wash on the bark, and absorbtion from it, as of lime wash, or ley and tobacco water; or by boring and plugging some offensive substance in the trunk, as has been proposed for the curculio, with sulphur, spirits turpentine and lamp-black, will drive it away, if it can be used without killing the tree.

I have reason to believe that this insect commences its career at the collar or trunk of the tree, and passes through one of its stages or tranformations under or near the ground, as intimated by a lady not long since, in your paper; and that the phenomena above described, constitute a second, if not a third period of its history, after the manner of what are called the grand-nurses and nurses, of the microscopic tribes. But this I leave to those better versed in such matters than I can pretend to be; for in this infinitessimal world, I frankly confess I find myself an utter novice. I am even astonished at what my own eyes compel me to believe, and almost in despair at it too. Where is the end of this living dust to be found, in wheat-rust, yellows, grape-rot, and all similar things; if this is the way of this great, coarse, granite world of ours. when you come to see its living atoms, as they are—small enough to gallop full tilt upon nothing—and still numerous enough to eat up the solid globe itself?

The coarse holes or punctures above described, which are seen in the bark, are by no means made by the puncture of the insect. He has no occasion for any such chasms; but they are the result of the sloughing off of the poison he leaves wherever he goes, as you will soon see by cutting into one of them.

In conclusion, I would say that I have been advised by my friends to withhold the publication of these facts till I could take time to trace out thoroughly the history, changes, and remedies, for this fatal insect, whatever its name may be; though were I to christen it, I should call it the "*Pear Devil.*"

I read the article of Mr. ALLEN, on pears, in your last number, with great interest, and I reflected that there was millions of dollars worth of valuable property, now in the process of destruction in the United States, as well as my own; and at the hazard of great mistakes, errors, and even of ridicule and contempt, in the present crude state of the inquiry, I have felt it my duty to testify as above, to what I have seen, and to turn all other eyes, at once, and without delay, to this larvæ, while it may yet be seen, thinking that this course gave promise of more safety, and of a more extensive, prompt, and thorough investigation, than any one man, (especially one so busy as I am in other matters,) could possibly make alone. And at all risk of errors, I shall not hesitate to report progress from time time, for we need the million eyes here, instead of one pair; and if others find out and describe more accurately than I can now do, the nature and habits of this pest, (as they surely will,) no one will rejoice more than myself—while I cannot but think that the public will respect my motive for publishing without delay, even after they have from a more thorough knowledge, corrected the errors which almost of necessity must lie latent in any statement made at this point of our research.

Allow me also to say, that since I have been engaged in these inquiries, I have most deeply felt the need of such an *Industrial University,** endowed by Congress lands in each of the states of the Union, as is recommended in the report of the Granville Convention, a copy of which I sent you. They could be erected, and the nation would never feel it; while it would in a few years double the intelligence, wealth, power, and glory of each state, and the Union at large.

Our state, and I hope several others, will move soon. Can you not say a good word for us? Your own Governor HUNT takes the right view of this matter, I am happy to perceive, as well as many other eminent men among your citizens.

I hope, and barely hope, that either some of the many remedies I have applied, or better, some change or peculiarity in the season, may check the career of this minute but pestilent destroyer, and save my trees yet a little longer; and when the scourge is once past, it probably may not return again for years to come. I notice, also, that trees once severely affected, last season, have not so many, if any eggs on them this year, which incites a hope that the same tree may not be visited but once in the course of its history, with a course of the disease, and that those which escape with life will stand triumphant, as the trees of olden time may have done before them.

I am suspicious, after all, that this is the same identical disease attributed to fungus by Mr. KNIGHT, and others, for its phenomena are much the same; and I myself, settled down in the conclusion that this little flocculi on the bark, (the evident cause of the disease,) was a fungus, until I chanced to hear an egg crack under my knife, and examined with the microscope, and found it as above stated.

I shall call a witness or two if I can, to the facts stated above, as I desire that your

* Which we shall notice in our next. ED.

readers should give to these statements more credit than is due to a single interested witness, that they may be induced to an earnest and prompt examination, and report on the state of their own trees.

The reason why apples recover from this poisonous influence so much more readily than pears, is, I think, found in the nature of the trees themselves, as seen in the well known habits and tendencies of the pear, toward what may be termed a mortification of tissues, from any wound or puncture whatever, at certain seasons of the year.

I had forgotten to mention that these little nests of eggs will be found much more apparent immediately after a rain, or after wetting the tree, than before, especially on the apple tree, where thousands will then be seen which escape the sharpest eyes when the bark is dry.

I would also suggest boring a slanting half-inch hole into the trunk of the tree, and turning in half a tea spoonful of quicksilver, and stopping close with corks and wax, so that the oxydised mineral may be slowly diffused through the sap, as certain species of insects are killed on trees in the West India Islands. Other substances should be tried in the same way.

And I hope that your readers will let us hear from successful experiments before the ruin becomes complete all over the world; for that this pest will continue to spread by every wind that blows, there is every reason to fear. It is, however, invariably most abundant on my grounds, upon trees nearest to those most affected, and least cared for, last season.

These eggs, when viewed under a powerful solar microscope, appear to be of a cellular texture, and from their little cavities, the bright sun-light reflects all the varied colors of the rainbow.

I find no larvæ, as yet, on the peach tree—the color of the bark may prevent this, even if they are there. But on the only two trees on my grounds affected by the yellows, I find those little holes, or the evident traces of their work last year, which induces the suspicion that the yellows in the peach may be caused by the same insect.

Yours truly, J. B. Turner.

I am able to add the testimony of my own eyes, to the above statement of *facts*, by Professor Turner. I also concur with him in regarding these facts as revealing with a high degree of probability, the cause of the pear blight in its latest manifestations.

Samuel Adams, Prof. Chemistry, &c., Illinois College.

Jacksonville, April 9, 1852.

P. S. I have never yet lost a single cherry tree since I commenced the habit of peeling them, except one which I peeled in the fall of the year, when quite too small, and the cold killed it.

GREAT VARIETY OF NATIVE WOODS.

BY W. H. DENNING, PRESQUE ISLE, N. Y

We were much impressed by a little incident in our neighborhood last summer—showing, 1st, our wealth of forest trees, and 2d, how much more interest foreigners take in them, than natives. A student in the *School of Nimes*, in Paris, wished to procure a collection of samples of the different American woods—showing their structure, grain, &c. A gentleman in our neighborhood, owning a beautiful peninsula of 40 acres on the Hudson—Mr. Denning, undertook to procure them for him. *Sixty species* he found on his

own place, almost as many indigenous trees as could be found in any one country in Europe. The remainder, making 107 species, he collected without difficulty. So few persons are aware of the great variety embraced in our forests, that we have asked Mr. D. for the list, for preservation in our columns. ED.

DEAR SIR—Having been requested by Mr. PEABODY, of Salem, to procure for him specimens of American woods, to be forwarded to a Scientific Institution in France, I found in our immediate vicinity 107 varieties, some few of which were brought from the south, but most of them are natives of our own soil. I have taken the nomenclature of Browne's *Sylva Americana*, giving also the common name, and some have only the name they are known by in the country. The first sixty varieties I found on this place; the residue in the mountains in Putnam county. Knowing your great affection for trees, I send you a list of the specimens furnished Mr. PEABODY. Previous to completing the collection, I became very much interested in it, and quite surprised to find so many varieties in our own vicinity. Our mountain wood-cutters take much pride in their knowledge of the different species of wood, and I remarked how very accurate they were in distinguishing varieties in which the difference is not very apparent. I added some specimens not included in the list, which did not reach the size of trees, as I included none under sixteen feet.

Yours truly, W. H. DENNING.

Presque Isle, Dutchess Co., N. Y., April, 1852.

1. White Oak, *Quercus alba.*
2. Black Oak, *Quercus tinctoria.*
3. Red Oak, *Quercus rubra.*
4. Sugar Maple, *Acer saccharinum.*
5. White Maple, *Acer eriocarpon.*
6. Pitch Pine, *Pinus rigida.*
7. Sycamore, *Platanus occidentalis.*
8. Hemlock, *Abies canadensis.*
9. White Ash, *Fraxinus Americana.*
10. Red Elm, *Ulmus rubra.*
11. Aspen, *Populus tremuloides.*
12. Sumach, *Rhus typhinum.*
13. Iron Wood, *Carpinus ostrya.*
14. Horse Chestnut, *Pavia lutea.*
15. Yellow Willow, *Salix vitellina.*
16. June Berry, *Mespilus arborea.*
17. Barbery, *Berberis vulgaris.*
18. White Elm, *Ulmus Americana.*
19. Catalpa, *Bignonia catalpa.*
20. American Large Aspen, *Populus grandidentata.*
21. Bass Wood, *Tilia Americana.*
22. Common Alder, *Ulmus serrulata.*
23. White Beech, *Fagus sylvestris.*
24. Mountain Ash, *Pyrus Americana.*
25. Crab Apple, *Malus coronaria.*
26. Pignut Hickory, *Juglans porcina.*
27. Sassafras, *Laurus sassafras.*
28. Shell Bark Hickory, *Juglans squamosa.*
29. Wild Cherry, *Cerasus Virginiana.*
30. Yellow Oak, *Quercus prinus acuminata.*
31. Long Leaved Cucumber, *Magnolia auriculata.*
32. Black Alder, *Alnus glauca.*
33. Rock Maple, *Acer nigrum.*
34. Tulip Tree, *Liriodendron tulipefera.*
35. White Chestnut, *Castanea vesca.*
36. Red Cedar, *Juniperus Virginiana*
37. Red Mulbery, *Morus rubra.*
38. Cork Elm, *Ulmus major.*
39. Honey Locust, *Geditschia triacanthus.*
40. Balsam Poplar, *Populus balsamifera.*
41. Yellow Birch, *Betula lutea.*
42. Downy Lime, *Tilia pubescens.*
43. Grey Oak, *Quercus ambigua.*
44. Hackmatack, *Larix Americana.*
45. Washington Thorn, *Crategus poplifolio.*
46. Thorny Locust, *Geditschia horrida.*
47. Choke Cherry, *Prunus serotina.*
48. Red Ash, *Fraxinus tormentosa.*
49. Swamp Magnolia, *Magnolia glauca.*
50. White Pine, *Pinus strobus.*
51. Flat Cedar, *Thuja occidentalis.*
52. Rock Oak, *Quercus prinus monticola.*
53. Red Bay, *Laurus Carolinienis.*
54. Black Walnut, *Juglans nigra.*
55. Yellow Locust, *Robinia pseudo acacia,*
56. Shining Willow, *Salix lucida.*
57. Red Mulberry, *Morus rubra.*
58. White Hickory, *Juglans amara.*
59. Mountain Maple, *Acer montanum*
60. Dogwood, *Cornus Florida.*

61. Spice Wood, *Laurus benzoni.*
62. Hackberry, *Celtus crassifolia.*
63. American Strawberry, *Euonymus Americana.*
64. Rose Locust, *Robinia viscosa.*
65. White Birch, *Betula popolifolia.*
66. Swamp Oak, *Quercus prinus discolor.*
67. Trodraro medecine. [?]
68. Hornbeam, *Carpinus Americana.*
69. Black Poplar, *Populus Hudsonica.*
70. Sloe, *Virburnum lentago.*
71. Curled Maple, *Acer rubrum.*
72. White Cedar, *Cupressus thyoides.*
73. Wild Plum *Prunus domestica.*
74. Moose Wood, *Acer striatum.*
75. Scrub Oak, *Quercus catesbei.*
76. Red Beech, *Fagus ferruginea.*
77. Red Cherry, *Cerasus borealis.*
78. Tree Whortleberry, *Vaccinum arboreum.*
79. Leather Wood, *Direa palustris.*
80. Water Oak, *Quercus aquatica.*
81. Bald Willow, *Salix?*
82. Bird Eye Cherry, *Cerasus padus.*
83. Balsam Fir, *Abies balsamifera.*
84. Black Sumach, *Rhus copallinum.*
85. Common Laurel, *Kalmia latifolia.*
86. Bastard Hickory, *Juglans myristicraformis.*
87. Black Chestnut, *Castanea, var.*
88. Butternut, *Juglans cathartica.*
89. Small Chestnut Oak, *Quercus prinus chinquapin.*
90. Birds Eye Wild Cherry.
91. Black Birch, *Betula ceuta.*
92. Pepperidge, *Nyssa multiflora.*
93. Black Ash, *Fraxinus samtucifolia.*
94. Rose Willow, *Salix.*
95. Mountain Pepperidge, *Nyssa capilata.*
96. Black Willow, *Salix nigra.*
97. Juniper, *Juniperus communis.*
98. Ash Leaved Maple, *Acer negundo.*
99. Chestnut Oak, *Quercus prinus palustris*
100. Pin Oak, *Quercus palustris.*
101. Canoe Birch, *Betula papyracea.*
102. Water Hickory, *Juglans aquatica.*
103. Mochernut, *Juglans tomentosa.*
104. Witch Hazel, *Hamamilis Virginica.*
105. Red Birch, *Betula rubra.*
106. Prickly ash, *Zanthoxylium frazinum.*
107. White Spruce, *Abies alba*

CRITIQUE ON THE APRIL HORTICULTURIST.

BY JEFFREYS.

On the Improvement of the Vegetable Races.—We are altogether in the novitiate as yet in the United States, so far as *much* progress in this respect is concerned. What with getting a living, clearing up the forests, subduing the land, getting avenues to market, and looking out for the *main chance*, we have had but little time to look into the great secret store-houses of nature, and closely examine her beautiful and elaborate processes of improvement. What we have discovered in this line, has been chiefly *blundered* into by accident; and if we have had any men among us who occasionally devoted any amount of mind to investigation, and published their results to the world, it has been in the ephemeral papers of the day, and in the usual skimble-skamble reading of such as ought to have been instructed by it, the essential benefit has been lost. But thanks to the late encouragement of books and publications set apart to subjects of vegetable physiology, growth of plants, new varieties of fruits, &c., &c., we may now begin to date some *real* progress in this line. Every thinking mind will subscribe most cordially to the sentiments of the article in question, which is truth, concisely, cogently, and plainly set forth.

You remark: "we are not going to be led into a physiological digression on the subject of the inextinguishable rights of a superior organization in certain *men* and *races* of men, &c." Very well, Mr. Editor, *you* may not, but *I* am. And you no doubt perfectly agree with me, as every body else will, who has the candor to confess it. There is as much

difference in the *breed of folks*, as there is in the breed of pigs and chickens, or in the different varieties of vegetables. Look at the despotisms of the old world, where men are divided into *castes*, or from the force of circumstances, obliged to move for generation after generation, in one continued sphere of thought and action, from father to son, interminably on, and see how men, under such circumstances, are born and made to differ, although of one *original* stock. Look how particular traits of talent run in different families for many generations, even in this country; and if, after a while bred out by intermixture with blood of a different "gift," the peculiar *faculty* will occasionally creep out, and act with its ancient energy and aptness. So in personal appearances and peculiarities. I consider that our "democratic" tendencies are fast infusing the levelling system among us, either up or down, as the case may be; but as we become better physiologists in the animal world, as well as in the vegetable, we shall fully understand it. I am aware that I am travelling somewhat out of the record, but the idea is suggestive, and it will do no harm to direct attention to it, even in these pages.

The largest Dessert Pear.—Sure enough; and so much the worse. Here is a great, overgrown, coarse, spongy fruit, with not a quarter the virtues in *taste* of one only half its size, of the same kind. If the "Boston folks," give premiums to such specimens, over the close, compact, well grown medium sized fruits of the same varieties, they certainly do a wrong thing. There is very little *merit* in such samples as these; for the same averdupois weight of fruit, in double the number of well grown pears of half the bulk of this specimen, is worth twice the money. A well grown Bartlett, weighing ten or twelve ounces, is large enough for *any* pear, and a Dutches d'Angouleme need not be larger than a pound, for all needful uses, and the development of its best properties. After attaining a full mid-summer size, with fair growth, the best qualities of this fruit are perfected, and no one should strive for anything beyond.

Pear Blight in Illinois.—What a patient, indefatigable man, Professor TURNER is! Why, one-quarter of the difficulties he has to contend with, would wear out the patience of half the modern Jobs in the universe. What with the curculio, the grape-rot and the pear, apple, and quince blight, he must have a time of it! out of all which, I most heartily wish him a safe deliverance. His locality seems to be rife in such evils.

The whole pear-growing community are under great obligations to Prof. T. for his plain and truthful notes on the fire, or sun-blight. His points, no doubt, are well taken—for that locality, if not for others. A specific may possibly be found for this terrible malady; and if investigation will do it, he is the man to ascertain it. The cause of the disease—for disease it is, no doubt—must first be ascertained. That accomplished, one half the battle is won, and a remedy will not be long in the discovery; but whether of easy application, is another question. As in the case of the curculio, it may be more expensive in the application than the disease itself; but it will be a consolation, at least, to know that we have a remedy.

As to the extirpation of the curculio by the frosts killing the fruit, I have my doubts. If there is no fruit to sting, the curculio will live, and propagate his kind elsewhere. I fear they will always be on hand whenever our trees are in bearing.

Hints on the Culture of Gooseberries.—A straight-forward, sensible article—to any one who grows them. But for all edible purposes, a dozen hills of rhubarb are worth half a hundred gooseberry bushes, when you consider the trouble of pruning the bush and picking its berries. Yet, at the rate Mr. THOMPSON'S bushes bear, and the price at which he sells his fruit, they are an object to the humblest gardener, who is under great obligations for this plain and well illustrated communication.

Notes on Country Seats Near Boston.—I doubt whether your correspondent is correct in saying that the houses are too small, or that the barns are too large. That is a very strange fault to find with country seats generally; they are quite too often apt to differ the other way. The chief fault, I apprehend, if fault there be, is, that the relative *position* of the barn is not right, as to the house. Never recommend a man to build a *large* house. The tendency is too much in that direction already, and where one builds too small and compact, twenty build too large and too expensive. A man who *sets out* to find fault with the country houses about Boston, may, no doubt, find abundant material for his occupation; but I doubt whether there is a place in the world where, taken altogether, so much good taste in the aggregate has been displayed, as in the neighborhood of that city. The land is naturally poor, wretchedly so, compared with *good* American land. It is rocky almost everywhere, swampy in places, and not over picturesque at the best; but there are many sweet spots, which the ingenuity of man has moulded out of the most forbidding materials. No, No. The Puritan blood of old Massachusetts has beat the whole American world in subduing a sterile soil, and smoothing away the rugged places; and instead of finding fault with what they have done, the wonder is, that under such difficulties they have accomplished half so much as is shown in their charming retreats, their suburban houses, and beautiful grounds.

What would the Bostonians have done had *they* possessed the promontories on the Jersey side of the Hudson river, the pallisades, the highlands above, the grand belts of wooded, and the fine swells of open land, along the river, through Rockland and Putnam, and Orange and Dutchess, and Ulster counties, with *their own* spirit of improvement, and the wealth of New-York to back up their suburban taste and enterprise? Or about the more level precincts of Philadelphia, even? A different sort of improvement would have been made *longer ago*, and in somewhat better taste, I fancy, than exists in many instances.

The Hydraulic Ram.—An excellent notice of one of the most useful inventions of the age. Every man who has a stream of water which he can make available, should at once adopt it, where the stream lies too low to spout the water into his yards and buildings. The agricultural stores all have them, cheap and good; and they are so simple in their management, that no apology should be admitted for their absence, where needed.

The Orange Pear.—Tut, tut, gentlemen. This Orange Pear, if it has any merit, will take care of itself. It used to be a pretty good fruit over in Jersey, in old times; and I should be sorry to learn that it had lost either its good manners, or good qualities in Buffalo. I've been thinking that some of these *ipse-dixits* of the apple conventions would fall out one of these days. It always was, and I fancy it always will be the case, that *positive* gentlemen will be mistaken in their opinions once in a while. Let us have the pear baked and preserved, the first "done brown," and the other "transparent;" and if you will suffer *me* to be the judge, you shall have *one* honest judgment, to say the least of it.

Those Grand-Island orchards I should like to see. I hobble out to Niagara once in four or five years, and if the *swimming* is good—for I dont suppose you have any ferries in that wild country—I may try to get over there and take a look at them. I beg of you, both Col. HODGE and Mr. ALLEN, not to be afraid of planting, for when our two belligerent parties of the state get the enlarged Erie canal fairly dug out, the eastern markets will be ready for them.

The Snake Plant of South America.—If this story be not a "Munchausen," I don't know what is. It smacks too much of the "penny-a-liner," and DICKENS, and "Household Words," for *me* to believe. There are, no doubt, plants in South America that will cure the snake bites—or, perhaps, by taking them internally—ward off their poison, for

such we have in this country, which the Indians know all about; but the *personal* part of the story is sheer gammon.

The Great Palm-house at Kew.—A pretty picture, and a great work of art. But I cannot help thinking how many comfortable cottages for the shivering and destitute poor, of which England is full, the building of this royal toy would have made, and how much comfort the same outlay of money would have bestowed in some such way. The Palm is a great, grand, and rare plant; and so are the pyramids great, grand, and rare structures; yet I don't see why people might not as well go to Africa, or India, to see the one, as to Egypt to see the other. It is a luxury of which I cannot well see the utility in *so much expense.*

Thorough Draining the Soil.—Too valuable an article to be tucked away into the double columns of the further end of the book. This experiment is a *perfect* one of the kind, and an illustration of the benefits of *thorough* draining that must convince the most unbelieving in its efficacy. Where we have so great a field for the selection of soils at low prices for agriculture, as in this country—much of which is of such composition that it needs no such process to render it productive—its necessity is not so apparent; but wherever soil is occupied, and at any price over fifty dollars an *acre*, which *needs* draining, and it can be done for twenty-five or thirty dollars additional expense to the acre, there can be no question of its economy.

For *gardening* purposes, on *heavy* soils, it is almost indispensible. To be sure, there are few pieces of land that will warrant the expense of Mr. LIVERMORE'S lot, under his process; yet even that, on so small premises, will pay. Field crops have been doubled by the ordinary simple process of under-draining alone; and not only doubled, but the crops made *certain* in *all* seasons. Drain tile is now getting so plenty and cheap, that *good* lands can well afford it, and *poor* lands of the proper kind, and well situated, can be made to pay richly for the improvement. JEFFREYS.

PRACTICAL HINTS ON GROWING CALCEOLARIAS.

BY A WORKING GARDENER.

AMONG the many objects of delight, there are few more interesting to the cultivator of plants, than the Calceolaria. I scarcely know what genus of plants is more interesting, when we take into consideration their diversity of color, and the rich, vivid markings of their corollas, and the airyness of their general appearance, when seen in full bloom. In the rapid strides that horticultural science has made of late years in England, the cultivation of the Calceolaria has not been overlooked.

The original old yellow species was shrubby; then the herbaceous sorts were introduced, of which *yellow* was the pervading color of the flowers, and from the latter, through incessant perseverance, have sprung all the numberless varieties that the most fantastical taste can desire. From the herbaceous yellow species, we have now varieties with the white, cream, purple, lemon, and chocolate grounds, with their unique spots of brown, maroon, and white; and lastly, the hybridizer's art has so nicely controlled color, that he has produced the varieties with stripes equal to that produced in the Carnation; nor is this all—for he has also so modified the *form* of the flower, that its original *long, ribbed, oystershell appearance*, has been replaced by the globular form of the cherry, having narrow throats, and highly colored caps.

Amateurs in general, consider the culture of this plant rather difficult. I have, myself, seen numbers under what is termed cultivation, in most miserable condition, huddled up together in small pots, struggling for existence, and placed so far from the glass that they vainly sought to reach more light a long way off—their leaves like cork-screws, devoured and distorted by the green fly. The buyer gets a set of these plants—pays a pretty good price for them—gets them home in the fall of the year, and they remain, most probably in the same pots, till they flower, producing a stem like a screw, with two or three stunted flowers to crown its miserable appearance; and should the *cause* be inquired into, the reply is, "the *climate* don't suit them;" a few hot days in this stunted condition, exposed, perhaps, to the direct burning rays of their life destroyer, Sol, and lo! they are gone as the gourd of sacred history.

This is the way that more than half the Calceolarias are grown—destroying the reputation of the parties who sell, by not answering the high description given, and the totally disappointing the purchaser. As for myself, I am not aware of a class of plants more easily grown with a little care, under the following provisions. Remember, in the first place, that Calceolarias require no more heat than a cabbage, and that the green fly, or *aphis*, is their deadliest enemy. If allowed to remain a day, they suck out the juices of the leaves, and the consequence is, the foliage contracts, curls, and twists up, and when that takes place, all the fumigation and care you could afterwards bestow, would be useless I invariably consider a plant half dead, when I see its foliage curled by aphis. Guard against this insect, and you have achieved the great imagined difficulty in the culture of the Calceolaria. The remainder is simple and easy, and as follows:

I commence with *seedlings*, and if proper attention is paid to *crossing*, there is always something interesting and amusing in their development. In fertilizing flowers for seed, select those of the half shrubby varieties—they will stand the hot summer better; use no flowers but such as are good in form; never cross a blotch with a spotted variety, or a striped with a spotted one, if you wish to improve your sorts, as the progeny will generally be nothing more than a jumbled up mixture.

Keep spots, blotches, stripes, and self-colored varieties, crossed respectively in their own class, and after a little practice in this art, you can form a pretty correct idea at the time you are fertilizing, of the ultimate results of your labor.

In raising seedling Calceolarias, you should sow your seed early in August, in broad pans or boxes of sandy earth, covering it but very slightly, and remember never to allow the surface of the soil to become dry. Cover it over thinly with moss, or some such material, as will prevent quick evaporation. There is generally a great difficulty complained of in getting the seed up. It is generally sown and watered—and watered again when dry—and so on, and probably never comes up at all. The simple fact is, the seed when first damp begins to germinate, and if it is then allowed to become dry, it is, of course, killed in the germ. Keeping it constantly damp will obviate this.

As soon as the young plants make their appearance, they require transplanting into pans or boxes of richer soil, and placing in cold frames close to the glass. When they are sufficiently advanced in growth, pot off into three inch pots—keep them cool and near the glass. Repot the young plants always (by turning out the ball,) as soon as you perceive the roots touching the side of the pot; do this irrespective of any prescribed month, until you have them in the sized pot you wish them to flower in. I generally flower them in nine inch pots. If you use rich, open loam, with plenty of well decomposed cow manure, giving the plants good drainage and plenty of water, you will be able to see the true character of your seedlings. Act as above laid down, and the leaves of your seedlings will

measure something like twelve inches long, with a corresponding amount of flower. When the bloom is over, those you esteem worthy of propagation may be readily increased in the following manner. Take some old frames, select a north aspect, and place the back of your frame to the north; put in drainage, and fill up the frame with good, rich, open compost. Then plant out your Calceolarias, giving them a good watering; shade and keep them close for a day or so, to induce them to root. In this situation, if attended to, they will produce a multiplicity of cuttings. To be successful in striking, requires a little carefulness. Four inch pots, well drained and filled with sand, are the best for this purpose. The cuttings should be taken off four or five joints long, placed around the sides of the pot, and well watered.

Take a little box, a yard square and nine inches deep, glazed air tight, placed over an excavated piece of ground of the same dimensions; place the cutting pots on the ground, cover up with your box, and tread the soil tight round the sides. In this simple manner I have struck eight thousand between August and November. The cuttings are never allowed to flag for want of water, or you may as well throw them away at once. In three weeks they will be ready to pot off. I seldom take the box off before the expiration of that time, unless they appear to be *very* dry. When struck, pot off singly in three inch pots.

The next process is the sytem by which to produce a specimen plant. If you do not require your best selected seedlings for propagation, after they are out of flower, and prefer growing them as specimens for the ensuing year, my process is as follows: When out of flower—cut down, select a north aspect, and plunge up to the rims of the pots; early in September, partially disroot, re-pot, and place them in a close frame; keep them there until you perceive indications of growth; then give air, syringe frequently with water slightly colored with soap; continue potting and re-potting, as directed for the seedlings, and at every potting lay the growing branches regularly all round the pot, and fasten them in their positions with hook pegs. The last potting should be early in February. I *then* generally use a pot from fifteen to eighteen inches diameter, (what some of our friends about Albany call *hogsheads*,) pot with rich, open soil, and neatly and regularly peg the shoots down over the surface, and as they continue to grow, continue to peg down; they readily emit new roots from the shoots as they are laid down, and will produce a great number of shoots; and all that are not required should be taken off, which will materially strengthen the selected branches for flowering. Towards the end of March they will throw up their flower stems, which will require to be supported, and properly arranged with small sticks, so that the plant will form a globular mass of well arranged flowers.

Amateurs who feel an interest in the cultivation of the Calceolaria, by following this simple treatment, as laid down, will produce a plant when in flower, that will measure four feet diameter, with something like a hundred, or a hundred and twenty flower stems to one plant. But I would here remind amateurs, that he who waters without ascertaining if it is required, or lets his plants remain pot bound, or potting them "*when he has time*," or permits them to be devoured with aphis, must never expect to realize such a specimen as above described.

A WORKING GARDENER.

May 4, 1852.

[A good practical article—by one whose beautifully grown plants we have, if we mistake not, seen more than once. Very few of our floral readers in this country know the curious beauty of the new hybrid Calceolarias, and those who will follow the directions given by our correspondent, will find themselves amply rewarded. ED.]

THE ACACIA DEALBATA—HARDY IN FRANCE.

BY BAPTISTE DESPORTES, ANGERS, FRANCE.

FRENCH horticulture, always seeking to increase our enjoyments, has accomplished a valuable result for the ornament of our parks and landscape gardens. After several years of experiment, it has succeeded in the open air culture of the *Acacia* (or Mimosa) *dealbata*.

This tree, so well known in all green-houses, a native of Van Dieman's Island, was first introduced into England in 1818, and into France in 1824. It has proved since then, every year, the greatest ornament of the green-house and the conservatory, growing so luxuriantly, that in a few years it reached the roof, whatever may have been its height elsewhere.

Few green-houses are high enough to allow it to accomplish the development of which it is susceptible; and such is the vigor of its growth, that very often it forces itself through the roof, struggling to attain that freedom of development that nature has granted it. There is something so wonderfully beautiful in its perfect inflorescence, that few persons familiar with good exotic collections, have not frequently paid a just tribute of admiration to this remarkable tree. What can be more graceful than its smooth branches, of a beautiful glaucous green, clad with its delicate persistent foliage of the same color, its myriads of gay, golden flowers, lighter than down, and seeking to envelop it with a floating cloud, gilded by the first beams of the morning. No description can do justice to the lightness, the elegance, and the grace of this truly lovely tree.

Mr. ANDRE LEROY, whose taste in horticulture is universally known, could not behold this tree, upon which nature seems to delight to lavish her gifts, without regretting that it should not be able to attain all its proportions in his extensive nurseries, so as to embellish with its masses of beauty, the numerous parks and plantations which he forms every year. Being desirous to know to what extent it could endure the rigor of the winter, he planted several in the open air, which not only resisted without injury, the most intense cold known in the south of France, but which soon established a growth such as we were not acquainted with in any other tree.

Several of these Acacias, planted three years since, merely against a wall, with a northern exposure, are now sixteen feet high; their branches nearly six feet long; the flowers which cover them are so abundant, and so finely relieved against the back-ground of glaucous foliage, that they resemble a large golden sheaf of the most graceful and elegant form. Others, planted at the same time, and entirely in the open air, that is to say, without any protection, are not at all inferior to the first, in luxuriance and vigor of growth.

The first tree of this kind planted in the open air at Angers, is now eight or nine years old, and more than twenty-six feet high; its branches are nearly eight feet in length, and extend in every direction, bending under the astonishing mass of its flowers. It is not possible to do justice to the beauty and the brilliancy of the bloom of this tree; and whoever has not seen it in all its splendor, can form but a very imperfect idea of it.

One remarkable fact about this Acacia is, that it continues to grow all the year round, and even during the winter months, the vegetation scarcely seems to be arrested. The flower-buds begin to appear at the end of summer; they remain in perfect preservation until the first fine days of spring; and towards the end of March, when the gardens begin to throw off their winter garb, the tree rapidly bursts into its greatest beauty.

Angers, which seems the chosen country of Flora, and for that reason, doubtless, has

been called "the Nursery of France," is situated between the 47th and 48th degrees of north latitude; the temperature is tolerably uniform, although the centigrade thermometer sometimes falls there below 12°, (5° above zero of Fahrenheit;) but there are none of those sudden changes which are so injurious to vegetation, in disorganizing the tissues. The severe frosts occur generally in December and January, and a thaw almost always takes place during a cloudy and foggy season, owing, no doubt, to the influence of the four rivers which surround Angers, and whose fogs counteract, by intercepting them, the rays of the sun. Owing to these favorable circumstances, we are able to cultivate in the open air, so great a number of plants, such as Camellias, and evergreen Magnolias, which do not succeed so well even in countries farther south than the city of Angers. Besides the above mentioned frosts, they also occur in March and April, of three, four, and five degrees, and sometimes more; these, although less severe than those of winter, are, however, much more injurious, because they occur at a season when vegetation is already under way, and when all the sap-vessels are much more sensitive to atmospheric influences.

The soil of Angers and its environs is argillaceous, resting upon a stratum of silicious rock of great depth, but permeable to water; it is easily warmed; the deposit of vegetable earth varies from eighteen to twenty-four inches in thickness.

I have entered into all these details of the nature of the climate and soil, in order to give a clear idea of the circumstances, in the midst of which the open air cultivation of this Acacia is accomplished; a tree which, for a long time, it was not thought possible to cultivate except in the hot-house or conservatory.

When I take into consideration the vast extent of the territory of the United States of America—when I recall the luxuriant and varied vegetation covering the different portions of that western soil, and which I was never weary of admiring when I had the happiness of visiting it, I do not doubt that the southern and temperate latitudes are as favorable as our own, and that the open air cultivation of this superb Acacia may be equally successful, which will add still more to the natural riches of those pretty country seats, whose beauty is only equalled by the vegetation that surrounds them.

I shall be happy, if, in introducing to the readers of that excellent Journal, the Horticulturist, so beautiful an acquisition to horticulture, I might be able to induce some of those similarly located as to climate, to attempt experiments, the success of which will repay them for their efforts.

BAPTISTE DESPORTES,
Nurseryman at Angers, (France.)

[We hope some of our readers in the southern states will profit by M. Desportes' valuable hints. No doubt this, and other Acacias, would be found perfectly hardy as far north as Columbia, in South Carolina.]

EVERGREENS—THEIR USE AND CULTURE.

BY JAS. RICHARDSON, JR., DEDHAM, MASS.

WE have often thought of painting, as a lesson and study for our friends in various parts of the land, who have the good fortune to reside in the country—two pictures; the one representing a house pleasantly situated, but wholly without shrubbery, lawns, or shade trees, bare, naked, and dreary as Sahara; the other, its counterpart, depicting the same house, charmingly environed by green and velvety lawns, with blooming shrubbery, fine shade trees, and groups of beautiful evergreens. And, we cannot but believe, that the

latter picture would so much surpass the former in its attractiveness, as to have a very striking effect upon every beholder, and help to bring about a great and delightful change in the appearance of country seats, farms, and villages. It is true, that the old destructive system of cutting down and burning up everything in the shape of a shade tree,—thanks to the efforts of yourself, Mr. Editor, and other philanthropists like you—has fortunately been banished from the civilised parts of the country, and that there is a growing interest in planting the graceful Elm, magnificent Maple, and other noble natives of the forest, around our houses, and along the lines of our streets, at least—and that men of real taste and intelligence are doing something more than merely setting out long, stiff, formal *rows* of shades; but still, the soul as well as sense, is continually pained at sight of bleak, bare hills, and stark-naked, staring houses, baking in the summer's sun, or shivering in the freezing blast of winter. Indeed, though we have in our northern states, six to eight months of winter—as witness the season now so grudgingly passing away—yet, in all our rural embellishments, we have scarely given a thought to the *improvement and adornment of the wintry landscape*. And, notwithstanding that many of the most beautiful evergreens in the world are indigenous to the soil, there is hardly an instance where they have been employed to any extent among us. When we reflect that the graceful, feathery Hemlock, the fringed and sombre Black Spruce, and the sun-shiny Yellow Spruce—(which, when well cultivated and flourishing, can scarcely be distinguished from his more fashionable cousin of Norway)—the stately spires of Fir,—the grand and noble White Pine—the curious and beautiful Holly—the pyramidal Arborvitæ—the rich green of the low growing Yew—the splendid Rhododendron, and the Magnificent Mountain Laurel, are all found, growing in wild luxuriance, even within the borders of "the old Bay State," we shall see how unnecessary it is to go abroad for beautiful evergreens, and wonder that these native resources for adorning our grounds and villages, and especially for *embellishing* the *wintry scene*, should have been so utterly neglected.

Use gives fitness and propriety, and hence use is an element of beauty. And a fine evergreen tree, like all things else in nature, is not only a beautiful object in itself, but the idea of cooling shade in the summer solstice, and protection and defence againt the inclement blasts of winter—the idea of use adds a new charm, and has the effect to enhance the pleasure one experiences at contemplating a luxuriant group of such trees. When the hills, and fields, and plains, are stripped of their leafy verdure, and all is bleak and bare, or covered as far as the eye can see, with a dreary expanse of cold and drifting snow, what a relief to the wearied vision, what a charming and beautiful effect does a line or group of living verdure, here and there, give to the wintry and desolate scene. We were strongly impressed with this fact, in visiting, during the last winter, a beautiful New-England village, in which some of the earliest inhabitants had the wisdom and good taste, years ago, to plant, here and there, groups of such trees; and we remarked, that they not only relieved and beautified the dreary sameness of the snow-clad scene, but that they seemed even to give a positive warmth and comfort. And we have no doubt, that on places exposed to the cold winds, they would contribute very much, not only to shelter human dwellings with their denizens, from the severity of their winter assaults, but that planted on the north side, and thus not in the way of the sun-shine, they would form quite an effectual barrier against the severe boreal blasts, afford a protection to fruit trees, and even to tender shrubbery, and really prevent the frost from striking down deep into the soil. Even setting aside all considerations of beauty, we would advise the planting of belts and screens of evergreens, for the sole purpose of protecting gardens, orchards, and the ground itself, from freezing winds. Many a choice exotic shrub, and tender delicate

plant, might live and thrive under the fostering shelter of a group of evergreens, that otherwise could not survive the cold of our northern seasons.

In the *grouping* of trees in planting, nature, as in everything else, should be our teacher, and our model. Nothing appears more awkward, and displeasing to the eye of taste, than a stiff, straight row of deciduous or evergreen trees, standing in one rigid, uncompromising line, like so many petrified grenadiers. If we turn our eyes to the fields and the meadows, we shall observe the wild trees and shrubbery gathering themselves into charming companies, or single spreading trees, dotting irregularly here and there, the emerald carpet of waving grass. And if we would produce an effect, either lovely or picturesque, we must follow beautiful nature, avoid all stiff, straight lines, all precise regularity and uniformity, and dispose our trees in graceful groups, with here and there a single tree of fine form and habit, resting its rich dense foliage upon the green lawn. Evergreens have a very natural and pleasing effect, planted upon a slope, or steep bank—especially if there be mossy rocks—different shades of green being mingled by way of contrast; or, if we wish to give the appearance of distance, to place those with lighter hue and finer foliage in the back ground, with those of more sombre colors, such as the Fir and Black Spruce, and the Pines with coarser foliage, in front. This, though difficult to manage, has the effect of perspective. Larches may be combined to advantage with the evergreens in the back ground. A collection of beautiful evergreens, tastefully arranged, with an underwood or bordering of Rhododendron, Kalmia, and our rich, green, trailing Yew, is one of the most charming pictures that can meet the eye, *in winter especially*. There are certain trees, however, we confess, that lose much of their beauty by being crowded in with others, and only appear to their best advantage when set alone. This is particularly true of the Hemlock, and the Black and Norway Spruces, and the Aborvitæ; at least they should form the outside of a group, while the stiff, ungraceful Fir, gives the finest effect by thrusting its tall spires through the masses of softer foliage, by which it should be surrounded. Evergreens, however, when set alone, should be allowed to grow naturally, with their lower branches leaning upon the lawn. Indeed, nothing is in worse taste than an evergreen with its branches lopped off half way up. It is but half a tree. It resembles a wretched man, who has undergone some surgical operation that has taken his arms off to his shoulders; and we should as soon think of shaving off the wavy, silken tresses of a fair girl—Chinese fashion—up to the crown of her head, as of mangling in this way a beautiful tree. The Black Spruce, with its thick-tufted, and dense foliage, of sombre deep sea-green, the Norway, with its fringed branches of bright gold-bronzy hue, and the graceful feathery Hemlock, are objects of unwearied delight, when thus treated. If the upper branches tend, when young, to overshadow the lower, they may be easily clipped, so that those below may never suffer from the exclusion of sunlight and air.

Culture.—The great objection that we meet with in urging our friends to plant evergreens to adorn the wintry landscape, is, "That it is so hard to make evergreens live." As we were admiring, the other day, two beautiful specimens of the Black Spruce, said the lady of the house to us, "When they were given to me, I merely made a little hole just large enough to crowd the roots in, and stuck them down, and they have grown finely." We expressed, to her great surprise, our regrets that they lived at all. They *ought* to have died. Whenever a tree is just "stuck down" in that way, without any care or love—with such a perfect indifference as to whether it lives or dies—I am always glad, from the principle of the thing, to have it give up the ghost. But care in planting, is not the only thing to be considered, if you would have your evergreens live and thrive. It is of primary necessity, that *the roots, while out of ground, should be kept moist—that they*

never for a moment even, should become dried during the process of transplanting. To this end they must not be exposed to sun or wind. If this rule is observed, in ninety-nine cases out of a hundred, your trees will live. We have taken pains to test this in various ways. A few summers ago, early in the season, we set out a long screen of Arbor-vitae, taken up and sent us from the woods of Maine. Our good Uncle, a skilful horticulturist, said that we should lose a very large per centage of them; our "minister" also *au fait* in such matters, prophecied their speedy death; our neighbors declared they couldn't live. We were careful to have them taken up with the sod on, in a damp stormy week. Six of them we set aside in a tub of water. Some three or four we left exposed to a drying wind, though the day was cloudy. We did not cut or trim them in the least, and out of two hundred and ten trees, we only lost four—the four we had left exposed. The six we had placed in the water were neglected for three weeks or more, till, finally, we carelessly planted them, with little thoughts of their surviving, though in a disadvantageous situation. They all lived. Again: in planting some fifty Norway Spruces, from four and a half to six feet high, we were careful to have them brought us *in a moist day.* The sun, however, came out, before we had finished setting them, and one of the best of the lot was somehow or other overlooked, and allowed to remain a number of hours with the roots exposed to the sun. It died; but all the rest have done well. We might give other illustrations, but we proceed to the second point; which is, that the trees should be carefully planted. The best *manure* for evergreens is peat earth, or vegetable mould, mixed with ashes, and allowed to remain if possible, through one winter to be decomposed, and then mixed with part sand or sandy loam. We tread down a layer of sods in a trench —dug deep to withstand drouths—then throw in, with our first layer of peat earth compost, a quantity of stones, large and small, to retain coolness and moisture, of which evergreens generally are so fond. We then mix the top loam with the compost, in finishing up the operation of planting, throwing in enough water with the earth to have it settle around the moist roots.

Thirdly. It is important that transplanted evergreens, to grow and flourish, should be kept wet and cool. To this end we must *mulch;* and, for evergreens we prefer fine hub chips, saw dust, or spent tan, (though for fruit trees meadow hay is better,) as with a little ashes, they make a good manure for the next year. Always select small young trees, before those that are large, especially before those that are old and stunted in their growth; they thrive much better; and large trees in the process of rooting are likely to lose their foliage, and much of their beautiful spray and branches, and thus become unsightly, scraggy, and desolate looking objects enough. The best time for transplanting evergreens is in the May or early June storms; they may, however, be taken up and do well at any time of year, if these precautions are taken—although the *very best season is just as the buds are swelling to burst,* and before they have started and grown so as to wilt in the hot sun.

Of the varieties of evergreens, their different characteristics, of the beauty and extent of the native kinds, we hope soon to speak further, as well as of the effect of their judicious grouping, in a future article. The evergreens, indeed, that are indigenous to our own soil—if there were no exquisitely feathery and graceful Deodars—no rich green, strange, coral-like Araucarias, so long and so difficult to acclimate,—no dark sombre Yews,—no solemn, grand "Cedar of Libanus," no fringed spruce of Norway,—would be all sufficient to cheer and warm and enliven the wintry scene. The thick verdue of the Yellow Spruce with its lively hue, seems to shed sunshine around in the gloomiest day;—and what border or shrubbery is more rich or charming, than a grand group of Kalmia

latifolias with its glossy Camellia like leaf, and glorious wealth of noble and stately flowers. But our space forbids us to indulge in further description now.

JAMES RICHARDSON, JR.

Dedham, May, 1852

SACRED AND CLASSICAL PLANTING.

BY JAMES GRIGOR, NORWICH, ENGLAND.*

TREE planting in general has been actively prosecuted of late years; but there is one section of arboriculture which has not, in my opinion, been carried to that degree of perfection of which it is susceptible. I refer to Sacred and Classical planting, or the congregating together of such trees as are interesting purely on account of the almost holy associations which they invariably awaken. To some, this subject may appear to be but of trifling import; to others, I am happy to say, the idea is fraught with an importance which the uninitiated have little conception of.

To underrate any description of planting is by no means the object of this paper. Such an attempt would meet with little sympathy in a country which in pure love for the sylvan features of nature takes precedence of all the nations of the world. Yet, although the ligneous productions of the earth, wherever found, are highly prized in this country, there are unquestionably some which, by association alone, are wrapped up in a more interesting garb than others. It is true the trees of America, Australia, and India, are, equally with those of Palestine and Greece, "tabernacula quæ fixit Dominus,"—"the tents which the Lord hath spread;" yet, who hears in any of them those whisperings of an antiquity loved and dwelt upon? Those countries may boast of their eternal forests, but still they are unconsecrated. The American and Australian ligneous floras are especially devoid of any accompaniment derived from fame. The arts and sciences have as yet no temples there which will be thought of in after ages, and, consequently, no link has been formed with existing objects or individuals. Poetry in those countries has not yet taken up those images presented by their magnificent sylva, and set them to the end of time in verse. Their forests, therefore, indicate only the changes in the vegetable world everywhere going on—a gradual approach to maturity—that maturity gigantic and long-lived—and then a like gradual descent to decay and death. Hence it is that the humble thyme plant, not a foot high, nourishing the apiaries of Hymettus, lives in the recollection of mankind, whilst the loftiest Platanus on the Ohio awakens no retrospective sentiment whatever.

In these matter-of-fact days, it will be asked, of what *use* is biblical and classical planting? To this question it might be sufficient to refer to the numerous and earnest pages that have been devoted by natural historians to such plants referred to in sacred and classical works, as are now of dubious identification; for example, the Mustard tree, the Hyssop, and the Lily of the valley; but it may be stated at once that planting such trees forms a pure source of pleasure, inasmuch as it leads back the mind to some of the holiest and best days of the world, and serves invariably to suggest some of the finest passages of its history. To youth, especially, such trees form the best means for awakening the lights of antiquity; all its greatest actions, all its holiest and sweetest spots, live in such productions, and are thus easily impressed on the mind. In biblical times, we find the patriarchs expressing themselves in earnest language with reference to trees as ornaments to

* London Horticultural Magazine.

their last resting-place. Thus, "Let us have the field, and the cave which is therein; *and all the trees that are in the field, and that are in the borders round about;* and let them be made sure for a possession to us." In classic Greece, whether on her hills, beside her streams or mossy fountains, trees had a prominence and importance such as they never had since. In that country, nature was not only allowed to make herself heard and seen, but she was energetically encouraged. Her umbrageous valleys and odoriferous uplands were filled with gods. Woodland temples rose on all hands. Every leaf which expanded itself was appropriated to religion; so that, independent of her usual verdant covering, she wore here a rich mythological tissue. Hence it was that a wreath of an evergreen formed the noblest reward that could be conferred on the most distinguished citizens. That circumstance alone will give all "possible eternitie" to the laurel.

One of the first trees in sacred association is the Cedar, a native of a lofty ridge of mountains in Syria. In winter Lebanon is always clad with snow, which, towards the north-east, where it is sheltered from the sea breezes and sunshine, remains sometimes during the whole year. The tree is therefore perfectly hardy in the climate of England, and is, of course, appropriate for that description of planting now under review. Perhaps the most promising young plantations of this tree in Britain are those of Sir George Macpherson Grant, of Ballindalloch, in the north of Scotland. The cedars are planted on the sides of sandy hills, which before were partially covered with trees sufficient to cause shelter, but not so close as to interfere with the proper development of the cedars. This, in my opinion, is the best way to get up a crop of this tree; for it is naturally disposed to become merely a spreading bush, without any stem; but when the chief supply of air is overhead, it naturally forms a good leading shoot. Technically, it requires to be *drawn up*. A new and grand feature in scenery is sure to be the result of an elevated plantation of this tree in maturity.

Gazing upon this object, the reflections which it excites are numerous: It was seen from Jerusalem, casting a "weight of glory" over the lofty mountains which environed that city like a magnificent rampart. It grew on that site whence the eye commanded a spectacle more glorious, perhaps, than was ever enjoyed from any other spot on the globe, embracing a view almost without interruption from the waters of the Mediterranean to the confines of the Persian Gulph. It was peculiarly the tree of Palestine. It was the belief, that God loved it more than any other tree. It was seen on all the hills of the holy city,—planted extensively by Solomon around his seat there, and personally recommended by him, as a most desirable ornament throughout Judea. Figuratively, this plant seems to have formed the general standard of excellence,—the Hebrew poets having had continual recourse to it as a fitting source of illustration. Had the graces of the church to be described, it was by a reference to Lebanon and its cedars;—the prosperity of the righteous, it was by a metaphor borrowed from this tree—"He shall grow as the cedar of Lebanon." Whatever was comely and majestic in the human countenance, or whatever commanded the love and reverence of the beholder, was aptly illustrated by this celebrated object. To see Lebanon and its cedars was, in ancient times, accounted a great privilege; and the anxious desire with which Moses and the people of Isreal, whilst journeying in Egypt, looked forward to this favored part of the Land of Promise, may be gathered from the earnest language of the patriarch:—"I pray thee," he says, "let me go over and see the good land that is beyond Jordan, that goodly mountain, *and Lebanon.*"

In its living state, the cedar, no doubt, conferred a very peculiar and striking character to the scenery of the east; its depth of green, and the disposition of its branches, rendered it "for glory and beauty" unequalled amongst all the objects of the vegetable king-

dom. Mechanically considered, it was equally sought after and prized. Jupiter's sceptre was attributed either to the cedar or cypress, a symbol of the eternity of his empire, because the tree was considered free from corruption. In the temple of Apollo at Utica, the wood of this tree was found nearly 2,000 years old. Sesostris, king of Egypt, built a vessel of 280 cubits, gilded without and within, with the cedar wood. It is highly probable, too, that king Solomon, who "made a navy of ships in Ezion-geber, which is beside Eloth, on the shore of the Red Sea," drew largely upon Lebanon for such an undertaking; but whilst there is some doubt on this point, it is certain that the timber employed in building the sumptuous Temple and palace of Jerusalem was of this tree, and of the growth of Lebanon. "All was cedar,—there was no stone seen." It appears, further, that the infatuated idolator chose this wood for forming his favorite images; for it is recorded, that in a Spanish oratory, consecrated to Diana, some centuries before the destruction of Troy, beams and figures of this wood were found of great antiquity. In the famous Ephesian temple, the statue of the goddess, "whom all Asia and the world worshipped," was reputed to be of this material, as was the most of the timber-work of that glorious structure. The idol, too, "which fell down from Jupiter," so closely consulted by those at Ephesus, was fashioned of the same wood; and it is probable that the most of the "graven images" of all idolatrous nations were of cedar, because in ancient times it was not only greatly prized for its beauty, but invested with imperishable qualities. Such are some of the traits of the cedar, one of the grandest ligneous products of either hemisphere, and far excelling others in sacred historical remembrance. It rightfully takes its place on the tops of mountains, and associates, naturally, with no trees except its own kindred—the pines and firs. Though generally dwarfed and stunted in this country, by being placed in situations and soils unfavorable to the development of its unrivalled character, it may be seen in a few instances exhibiting something of that extraordinary beauty which distinguished it in the days of Solomon, and rendered it the boast of Syria.

Cavillers there are who insist that the cedar of the Bible cannot be that of Mount Lebanon, as the tree cannot be considered very lofty. Let all such get a sight of a tree of this sort, growing at the seat of Robert Marsham, Esq., Stratton Strawless, Norfolk, a noble, upright specimen, with a branchless trunk of about forty feet.

Next in importance is the Oak. It will not be neceseary to dwell at any length on this tree, as its associations both sacred and classical are well known to every one. The object of this paper is to offer, if possible, new and striking features. It is scarcely to be wondered at that this grand object bearing, when in perfection, such an immense burden of boughs and spray, with a tufted, irregular, and consequently picturesque outline, should have been selected as an object worthy of so much veneration. A chain of exalted remembrance is linked to it in the mind of all those who have read any classical author; and in the bible there are several incidents connected with it, sufficient to hand it down as a venerated object to the latest ages of the world. The patriarch Abraham spread his tent under the oak of Mamre, and formed a grove of this tree for the accommodation of his family and friends, where they might rest their weary limbs and drooping bodies in the heat of the day. Under an oak Joshua set up the tabernacle of the Lord, that the congregation might with comfort perform the public services of religion. How highly the descendants of Jacob valued those oaks which grew on Bashan may be gathered from a remark in the book of Ezekiel with reference to Tyre—"of the oaks of Bashan have they made thine oars." Throughout the east it was customary to bury the dead under an oak, so that the relations might sit over the grave screened from the fierce heat of the sun. This imperial plant, even

"Jove's own tree,
That holds the woods in awful sovreignty,"

was well known all over Greece, and forms the basis of many a Hellenic legend. According to some, Jupiter's might was derived from the oak; and with a disinterestedness worthy of imitation, he no sooner felt its power within him, than this father of gods and men set himself to the task of teaching mankind to live upon acorns, so that they might participate in his puissance. The temple and oracle of this god in Dodona, the most ancient in all Greece, was surrounded by oaks, which, with the ground in the neighborhood, was endued with a prophetic spirit. The oaks, therefore, became endowed with this gift, and delivered oracles. So far as the classic page is concerned, the voice of antiquity directs us to no tree more generally than the oak. It grew chiefly and in great abundance on the slopes and heights of Hellas, introduced, it is true, near to residences, for the sake of its umbrageous and cool arches in summer time; but still in its greatest perfection in the magnificent solitudes far from the busy hum of men. The state of art, of poetry, and elegance in Athens might have been pretty correctly ascertained from a simple fact connected with this object—the intense, yet discriminating delight with which the people looked upon the beauties of the oak in its numerous varieties, during its gorgeous autumnal appearance. Notwithstanding our advance in civilization and refinement, and love for sylvan imagery, it is questionable whether we are yet up to the mark of that taste which the Athenians exhibited in all that relates to trees and planting.

The Mulberry is generally reckoned as a biblical tree, but it is very doubtful if it has really a right to be so included. Loudon, without inquiring whether our translators were right in rendering the original term *baca*, at once concludes that the tree is twice mentioned in the sacred writings. Hasselquist states, that the mulberry scarcely ever grows in Judea, very little in Galilee, though abounding in Syria and in the mountains of Lebanon. In Chronicles, the term *becaim* is rendered pear trees, and Aquila and the Vulgate have it in the same way. Parkhurst gives it as his opinion that *baca* means a kind of large shrub from which is distilled an odoriferous gum, and in this opinion he is strengthened by the fact that the Arabs have a shrub corresponding with this description, which they likewise call *baca*. Its other associations rest on a clearer foundation. Pyramus, who lived in Babylon, became enamoured of Thisbe, a very beautiful virgin of that city. The flame was mutual, but their parents forbade marriage, so that the lovers regularly interchanged sentiments through an aperture in a wall which separated their houses. They agreed to meet at a given time at the tomb of Ninus, which was overshadowed by a white mulberry tree, and without the walls of Babylon. Thisbe was first there, but the unlooked for arrival of a lioness frightened her away; and as she fled she dropped her veil, which the lioness found and left covered with blood. The lover soon after arrived, and having found Thisbe's veil bloody, concluded that she had been torn to pieces by wild beasts. He instantly stabbed himself. When she had so far recovered, Thisbe returned, and when she saw the dying Pyramus, she fell upon the sword with which he destroyed himself. The mulberry tree was stained with the blood of the lovers, and ever afterwards bore fruit of that color.

Standard mulberries should invariably have a strong stake set up beside them to keep them in an upright position, and this should be continued until the tree is at least twenty years of age. The prevailing characteristic of mulberry trees throughout England, when left entirely to nature, is, that they are one-sided and top-heavy, requiring props to support them. This defect might be easily remedied by applying the aid alluded to. The trees should be planted in sheltered situations, in rich trenched soil, kept up by frequent manurings. When so treated the fruit is large and juicy.

The Pomegranate (*Punica Granatum,*) Pliny informs us, was first found near Carthage. It is the *malus punica* of the Romans, and the *rimon* of the Hebrews, probably from *rama,* to project, from the strong projection or reflexion of light from the star-like crown of the fruit which bears the upper part of the calyx. The high estimation in which this tree was held in the land of Isreal may be inferred from the fact, that it was one of the three kinds of fruit brought from Eschol to Moses and the congregation in the wilderness; and from its being distinguished by the rebellious sojourners as one of the most delicious luxuries they enjoyed in Egypt. No circumstance more clearly evinces the value which the eastern nations put upon this fruit than the choice which king Solomon makes of it to represent certain graces of the church—"Thy temples are like a piece of pomegranate within thy locks." The ornaments placed in the net work over the crowns which were on the top of the two brazen pillars of Solomon's temple were carvings of this fruit, as were also those decorations ordered to be fixed on the skirt of Aaron's robe. Greece was full of it. That district known as the land of Pindar, Hesoid, and Plutarch, was in particular noted for rich crops of this fruit. Agatharchides relates the following anecdote connected with this tree: A dispute arising between the Athenians and Bœotians, respecting a spot called Side, situated on the borders, Epaminondas, in order to decide the question, took out a pomegranate from under his robe, and demanded of the Arthenians what they called it. "Rhoa," they replied. "Very good," said Epaminondas; "but we call it Side, and, as the place derives its name from the fruit which grows there in abundance, it is clear the land must belong to us." And it was decided in favor of the Bœotians. In fine seasons it produces its fruit of the full size in this country when trained against a wall.

The fig tree is frequently mentioned in the Holy Scriptures, and is common throughout Palestine and the east generally. Amongst the ancient Hebrews it was known as *thaena,* signifying the tree of grief, probably from the leaf causing inflammation when applied to the body. It was of this tree that our first parents, immediately after the fall, twisted for themselves girdles or aprons. Throughout the Holy Land the failure or destruction of the fig tree was accounted one of the greatest public or private calamities. Hence it is said, "Although the fig tree shall not blossom, &c., yet I will rejoice in the Lord." In ancient Greece this fruit tree was well known and extensively cultivated. It was the pride of Attica. According to the traditions of the Athenians, figs first grew on a spot not far distant from the city on the road to Eleusis, thence called Hiera Suke, "the sacred fig tree." So much prized was the fruit here produced, that the inhabitants were forbidden to export them. This law, however, was often contravened, and the informers against the delinquents were called *sycophants,* or "revealers of figs;" a word which has since been in use to characterise mean-souled, dastardly persons, such as informers generally are. Naxos, a celebrated country in the Ægean sea, was celebrated for its fig trees, which were especially cherished by Bacchus, who was the chief god of the island. Here this divinity obtained the title of Meilichios, "the gracious," because he taught them the use of this fruit. In the processions of this god the fig was carried next to the vine. Throughout Sussex the fig is planted as a standard; and it is in this character that it can be best introduced in a classical group with others.

To the Olive tree the Sacred Writings abound in references; it has been from the earliest ages the emblem of peace, and the bounteous gift of heaven. In the garden of the Horticultural Society at Chiswick, and in several parts of Devonshire, it grows as a standard, and survives the severest winter. In other counties, therefore, it may be made to flourish with the aid of shelter. This tree rose plentifully all over Judea, and so viewed, ex-

cites a crowd of interesting reflections in every well disposed mind. Thus it is often figuratively used in the poetical diction of the east. Speaking of the righteous man, it is said:—"His branches shall spread and his beauty shall be as the olive tree."

The most distinguished, and to many, the most endearing reflection, suggested by this tree, arises from its giving the name to that Mount, (the Mount of Olives,) so famous in the history of the Saviour. This mountain lay a little out of the city of Jerusalem, towards the east, commanding a full view of the metropolis, from which it was separated by the valley of Jehoshaphat, and the brook Kedron. To it the Redeemer of the world was wont to retire in the evening, after he had spent a laborious day in teaching the multitudes that attended His ministry in Jerusalem; from it, He gazed upon the city, wept over it, and predicted its final overthrow. In the garden, which lay at the bottom of this hill, He commenced the scene of His last sufferings; and from the highest or central elevation, He ascended into Heaven. The olive crowns the top of the hill till this day; and from its being so remarkably long lived, it is thought by many, that the vicissitudes of eighteen hundred years have not yet swept away the identical objects under which our Redeemer wandered. To many superficial readers of the Bible, and especially to those who rest implicitly on our translation of it, the olive tree forms a stumbling-block not easily removed. The plant, as is generally known, does not produce leaves of a deep green color, though properly enough classed amongst our evergreens. The leaves resemble those of the willow, are of a light, or yellowish green, and sometimes rusty underneath, and do not equal the expectations of travellers. Thus Mr. Sharpe, while in the East, observes: "The fields are in a manner covered with olive trees; but the tree does not answer the character I conceived of it: the royal Psalmist, and some of the sacred writers, speak with rapture of the green olive tree, so that I expected a beautiful green; and I confess I was wretchedly disappointed to find its hue resembling that of our hedges when they are covered with dust. The olive tree may possibly delight in Judea, but undoubtedly will disgust a man accustomed to English verdure." Now, it so happens, that the word translated *green*, means vigor, or freshness; and every one must know that exuberant vegetation is not necessarily of a green color, but frequently of a red or pinkish tinge. In Daniel, the seventy translators render the same word *flourishing*: for it is absurd to suppose, that when King Nebuchadnezzar said,—"I was at rest in my house, and green in my palace," (as it is in the Hebrew,) he referred to color. The passage in the Bible, therefore, should be rendered:—"I am like a *vigorous* olive tree in the house of God." Rich harvests of this tree waved over the plains of Greece; and it is yet an inhabitant of that highly favored country. It presents nothing magnificent—nothing solemn, for it never exceeds fifty feet in height; yet its loveliness, and sunniness, amply compensate for its shrub-like size. A warm, dry air seems to suit it best. Hence it was found in greatest perfection in Attica and Cilicia. In those countries, where regularly propagated for its oil, it was the practice to plant the trees thirty feet apart, so as to allow the air to circulate freely about them on all sides. This tree forms a favorite haunt of singing birds, having a thin shade, sufficient to shelter them from excessive heat, yet not excluding much light.

The Almond, mentioned in the Holy Writ, was by the Hebrews called *shakad*, signifying to watch, or awake, because after the rigors of winter, it is one of the first to hail the coming of spring. This idea seems to be referred to in the vision which Jeremiah the prophet had. "The word of the Lord came unto me, saying, Jeremiah, what seest thou? And I said, I see a rod of an almond tree. Then said the Lord unto me, Thou hast well seen; for I will hasten My word to perform it;" or rather, "I am hastening or watching over my word to fulfil it." The rod of Aaron was of the Almond tree, as were also the

rods which the princes of Israel bore. The tree has an interesting history in Greek mythology. Demophoon, the son of Theseus and Phædra, on his return from the Trojan war, visited Thrace, where he was tenderly received and treated by Phyllis, a beautiful queen, whose charms were not unappreciated by him. He retired to Athens, of which he was king, promising to return to Thrace at the end of a month. At the expiration of the time, the queen wandered daily on the sea-shore looking out for her lover, and when at last winter came and he returned not, in an agony of despair, she fell dead by the sea-side, and was immediately changed by the pitying gods into an almond tree. Her lover soon after returned, and hearing what had taken place, flew to the tree and clasped it in his arms, when the love of Phyllus, unable even then to restrain itself, caused the tree, though in winter, to burst forth into blossoms. The beauty of this tree when in flower, at a time when others have not begun to bud, renders it a most desirable object near to residences. It is the first to interrupt the reign of winter, and consequently the earliest forerunner of the coming spring.

The Apple tree is mentioned in Holy Writ; but I am inclined to believe that our apple, (*Pyrus malus*,) is not the tree alluded to in the Sacred text. In Canaan, and the surrounding country, it is almost worthless, and is by no means entitled to the praise bestowed on that tree by the Spirit of inspiration. The inhabitants of Egypt and Palestine import their apples from Damascus, their own orchards producing no fruit fit for use. It is impossible, therefore, that a tree whose fruit was represented to be most delicious and comforting, could be found in the "crab, or wilding," whose fruit, according to Pliny, had "many a foul word and shrewd curse given it," on account of its sourness. Besides, the apple of the Scripture is classed with the vine and fig, palm and pomegranate, as furnishing a grateful repast, and the failure of which was reckoned a serious calamity,—an unquestionable proof, that we must look elsewhere for the real apple of the Holy Land. In Patrick's Commentary, it is thought that the word *Thepucheem*, translated apples, denotes any species of fruit emitting a fragrant odor; but this definition is too vague to be useful. The term occurs in six passages of Scripture, and in them all it is given as an appropriate title to one of the noblest trees in the garden of Nature. "As the apple tree among the trees of the wood, so is my Beloved among the sons; I sat down under his shadow with great delight, and His fruit was sweet to my taste." Again:—"Stay me with flagons, comfort me with apples, for I am sick of love." "A word fitly spoken, is like apples of gold in pictures of silver." Now, when it is known that trees of the citrus family flourished in Judea several centuries before the birth of Christ, and when it is recollected how appropriate the passages quoted become, when applied to the citron or orange, there is little doubt of their referring to the genus just mentioned. Flouishing under oriental skies, the citron becomes a large and beautiful tree, having a perennial verdure, and perfuming the air with exquisite odor. It is with peculiar propriety, therefore, that the spouse exclaimed:—"As the citron or orange tree among the trees of the wood, so is my Beloved among the sons. I sat down under His shadow with great delight, and His fruit was sweet to my taste." Those who are desirous of trying orange and citron trees in England, may take courage from the fact that they grow to a large size, with a slight protection during severe winters, at Salcombe, near Kingsbridge, in Devonshire; and at Dartmouth, Luscombe, and Kitley. I am inclined to think that if spaces were cleared in plantations, with an open space to the south, these trees might be planted in such places with every prospect of success. In severe weather, the tops and stems might be thatched with dead branches, and their roots covered with dry litter, and also thatched. This is the fruit which King Juba describes as the apple of the Hesperides, by which name it was

known throughout Africa. The most ancient Greek writer who describes this tree is Theophrastus, who says it was grafted on the common apple to produce black citrons, and on the mulberry, for the sake of getting the fruit of a reddish color. Such things are quite impossible; all statements like these tend only to weaken the testimony of this great naturalist in other matters, and show clearly how closely the earliest efforts in history are allied to the works of the mythologists. This tree thrives remarkably well in Lower Egypt; and in the Garden of Heliopolis, where it shades the Temple of the Sun, it appears in matchless beauty. It is questionable whether the citron was known to the ancient inhabitants of Hellas; for Antiphanes observes in his Bœtian, that it had only been recently introduced into Attica:—

"*A.* 'Twould be absurd to speak of what's to eat,
As if you thought of such things; but, fair maid,
Take of these apples.
B. Oh! how beautiful!
A. They are, indeed, since hither they but lately
Have come from the great king.
B. By Phosphoros!
I could have thought them from the Hesperian bowers,
Where th' apples are of gold.
A. There are but three!
B. The beautiful is nowhere plentiful."

Viewed in connection with the present subject, the Vine forms a most important tree. No effort of mine can add anything to the delight with which this well known plant is looked upon by all nations. The classics seem to have written under its shade: their pages exhale the sweet odor of its fruit. It is frequently mentioned in the Old and New Testaments. It was known to the inhabitants of Judea, both in its wild and cultivated forms, though the former, in all probability, was not, strictly speaking, a vine. It was certainly not the *Vitis Labrusca*, or Fox Grape of Botanists. In the vales near Jordan, not far distant from Jericho and the Dead Sea, is found growing in great abundance, the vine of Sodom, which produces fruit as bitter as gall, and according to Bishop Lowth, as deadly as the poison of a serpent. This deleterious grape is alluded to by Moses in terms fully bearing out this description: "For their vine is of the vine of Sodom, and of the fields of Gomorrah; their grapes are grapes of gall, their clusters are bitter, their wine is the poison of dragons, and the cruel venom of asps." The tree, however, referred to so often in the Bible and in Classic Song, is the grapevine, (*Vitis vinifera,*) well known throughout all the temperate zones of the Old World, as an exuberant climber, and producing the noblest and most delicious of beverages. Thus, in contradistinction to the spurious plant, our Saviour, in the Gospel of John, says, "I am the true Vine, and my Father is the Husbandman." And again, in the triumphal Song of David on the plagues which desolated Egypt, and procured the liberation of his ancestors, he says: "He destroyed their vines with hail, and their Sycamore trees with frost." Of all the grapes produced in the East, those of Canaan were considered to be the finest. Dandini, an Italian traveller, and accustomed of course, to see grapes in great perfection, was surprised at the extraordinary size of those produced in the vineyards at Lebanon, which were of the size of prunes, and of the most delicious taste. In the book of Numbers, it is stated that a bunch gathered in the valley of Eschol required two men to carry it some distance, a fact which has been recently confirmed, if any proof had been needed, by Doubdon, who met with very extraordinary vines near to Bethlehem. Persia seems entitled to the honor of giving birth to this plant; thence it appears to have found its way into Judea, Greece, and Sicily, and soon after into Italy, Spain, France and Britain. It is, however, contended by

Theopompos, that it was the inhabitants of Chios, an island in the Ægean sea, who first found it, and cultivated it, transmitting it to the other Greeks. This point must forever remain in uncertainty, for as Homer refers to the vineyards of his heroes, the natural conclusion is, that it was plentiful in Greece before the historical era. Throughout that country, sandy swells or eminences facing the morning sun, were fixed upon as the best sites for this plant, and to this day, south-eastern declivities are preferred to any other aspect. It is worthy of remembrance, perhaps, that the first instructions in the art of pruning the vine, so as to induce it to bear more plentifully, was borrowed from an ass browsing upon it, and for this hint a marble statue was erected in honor of this quadruped in the maritime town of Nauplia. The vine was sacred to Bacchus, and throughout Greece, when the labors of the vintage were concluded, scenes of Bacchic enthusiasm and excess were yearly enjoyed by the youthful rustics engaged in that glorious harvest. The references to the vine in the classics, are endless; and he who has the leisure and inclination to search for them, will not long look in vain. I have seen the vine planted in England near to Elm trees, on which it found a suitable space to spread its branches; and I recollect in the garden of the late Mr. Loudon, at Bayswater, several vines were so planted, which bore remarkably well. It is necessary that the branches of the elm should be thinned sufficiently to admit light and air, otherwise the grapes will not ripen. In this form it had better be introduced in a collection of sacred and classical plants, choosing the English elm, (*Ulmus campestris,*) as its support, as that tree was also known to the Greeks.

The Juniper is twice mentioned in the Holy Scriptures. Commentators are in great doubt and uncertainty regarding the tree to which the inspired writers allude, arising from the somewhat absurd idea of keeping the English juniper continually before their eyes. It would, indeed, be hard to fancy that the prophet Elijah found a refreshing shade under a shrub a few feet in height, without any pretensions whatever to the character of being umbrageous. The difficulty, however, is quite uncalled for; and the fact that our divines are so much divided concerning this tree, proves how necessary it is that those who profess to illustrate the Scriptures, should have an intimate acquaintance with natural history, or at least the aid of those who know something of that subject. In all probability, the juniper of the Bible is the *Juniperus drupacea*, a native of Mount Casius, in Syria, and identical with those seen by Bellonius on Mount Taurus—trees which reach the height of a cypress, with a broader head, and therefore more likely to be chosen for shade and shelter. It appears the juniper was resorted to in the days of Job for food; and it is so far corroborative of the supposition hazarded, to know, that at the present day, the inhabitants of the mountains above referred to, eat the fruit of the *J. drupacea*, which is of the size and shape of an Olive. Be this as it may, there is not the slightest occasion to seek a substitute for the juniper of Holy Writ, in the Genista, or Spanish broom.

The Myrtle has a clearer genealogy, and comes down to us as pure and odoriferous as it grew in the gardens of Cimon, Pericles, and Epicurus. Those were the chief patrons of Flora; they had the myrtle planted in great profusion on mounds, freely exposed to the breeze, so that when the plants were in flower, the winds came laden with an odor rivalling that of the rose. This shrub is Grecian all over; whether we look at its form, the size, shape, and color of its leaf, its exquisite fragrance, or the form, color, and scent of its flowers, the classic stamp is upon it. This favorite denizen of Hellenic lands, was dearly loved by the Greek; in his eye it was instinct with divinity, and wherever he saw it, his fancy represented to him a most beautiful maiden of Attica, fairer than all her countrywomen. The tree was peculiarly sacred to Venus; her temples were invariably skirted with it; and under the favorite name of Myrtilla, she was adorned throughout Greece.

Full of the traditions of his country, and accustomed to hear the Myrtle associated so constantly with such traditions, it is not to be wondered at that this plant was adopted by him as the *sine qua non* to temples, gardens, streams, and splashing fountains. In the festival of Europa, at Corinth, a myrtle crown, said to be ten yards in circumference, was borne in procession through the city. The priests of Aphrodite shaded their foreheads with wreaths of myrtle, and the statue of that matchless goddess herself was often crowned with a circlet of the same plant. It was worn by the Athenian magistrates, as well as by all those who had gained bloodless triumphs. It was the reward of victors in the Olympic games; and at Rome the ladies put the leaves into their baths, fancying that this plant of Venus must be favorable to beauty. The general selection of the Myrtle was well made; for it is questionable whether any other would have stood the test of being used in such multifarious ways, and especially as ornaments to the masterpieces both of nature and art. In all classical groups this tree should have a prominent place; and in order to encourage such planters, I may mention that young plants nine inches high stood out in my nursery last winter uninjured. The cause of its succeeding so indifferently as an open air plant, in Britain, is certainly on account of its being by most nurserymen kept in doors during cold weather, and treated as a green-house plant; whereas it is clearly capable of accommodating itself to this climate, and growing wherever the Arburtus will thrive. The allusions to this plant in the bible are few. Referring to the effect of the Gospel, or the reign of Christ on the state of the world and the dispositions of mankind, it is said: "Instead of the thorn shall come up the fir tree, and instead of the briar shall come up the myrtle tree."

In the Gospels of Matthew, Mark, and John, the Hyssop is mentioned. It grows on the mountains around the city of Jerusalem; and as it is plentiful in Calvary, it is probable that it was a handful of this herb that was plucked, imbued with vinegar, and applied to the parched lips of the dying Saviour.

The Box tree is another biblical tree, but the sacred allusions to it are slight. In the Augustan era the Roman villas were profusely adorned with this tree clipped into a variety of figures. In Greece it appears to have been kept rather in the back-ground.

The Pine and Fir are also mentioned in the sacred text, but the references to them are not sufficiently clear to warrant any identification.

I close the biblical list of ligneous plants suited to the climate of Britain with the Rose. Great diversity of opinion exists among the learned in relation to the true meaning of the term *habatzeleth*, in our version of the bible translated Rose. The Seventy interpreters, with Jerome, render it "the flower of the fields." Others think the Asphodel is meant, or some other kindred bulbous-rooted plant, and in support of such supposition, the rendering of the term is so far favorable—*habab*, he loved; and *batzel*, a bulb or onion. At any rate, there is not the slightest doubt that the Rose was known and appreciated in biblical times, though there is some ground for supposing that the species of our genus (*Rosa*) are not referred to in the passages of Scripture.

THE NEXT POMOLOGICAL CONGRESS.

Dr. Brinckle of Philadelphia, the President of the American Pomological Congress, has given public notice that the next meeting of this body, will be held in Philadelphia on the thirteenth day of September next. (See circular, among Society notices for this month.)

This will be the third session of the Congress of Fruit Growers—the first having been held at New-York, and the second at Cincinnati; and there are several reasons why we are led to believe that it will be the largest and most interesting meeting of the kind yet assembled. In the first place, Philadelphia, being in the heart of the middle states, is more centrally situated than any other place that could be selected. In point of climate and variety of horticultural products, that city stands midway between the north and the south, between New-England and the valley of the Mississippi. She stands in the very centre of the great *peach district*, and we notice with pleasure, that the time of meeting has been fixed earlier than usual, partly, no doubt, with a view to a more extended exhibition of this most delicious of all fruits. Perhaps it is still rather late, but we hope by the aid of ice houses and fruit preservers, it will not be found materially so. Baltimore and Washington can, as we know from the evidences of our own senses, show specimens of this noble fruit that will make northern pomologists feel a sinking of the heart, and the eastern shores of Maryland—from all that we learn, can produce samples of pears that will awaken the competition of the well tried pomologists of Massachusetts.

As Philadelphia is pre-eminently the focus of beautiful plants, and as the Congress will meet in the Chinese Museum building, which is the familiar exhibition ground of the Pennsylvania Horticultural Society, we may expect to have the cornucopia of Pomona gracefully festooned by the loveliest garlands of Flora. There can be no doubt that, altogether, the meeting will be one of no ordinary attraction to all the devotees of Horticulture.

And having said this for the merely superficial interest of the meeting, let us glance at the deeper meaning, and more intrinsic value of this biennial gathering of the fruit growers of the whole Union.

Any body may learn horticulture on his own account, without going to school, or taking lessons from masters. Most persons, in fact do so—practicing in their own gardens, in the traditional way handed down from father to son—from one generation to the succeeding one. They may even, by the aid of books and practice together, acquire a very high degree of knowledge in the matter. This is being *self-taught* in the art; and with many pleasures, there are, of course, many drawbacks and errors in this mode of acquiring information.

Horticultural societies, and journals of horticulture, may be considered the *common-schools* of the art—where, by the help of practice at home, prizes and competition in public, and stated *rehearsals* of all the best talent exercised on the soil, the competitors are stimulated to new exertion, and the taste of the local neighborhood is carried forward and raised to a higher level.

A national congress of cultivators, like this Pomological Congress, takes a still higher ground, and may fairly be considered as the *University* of horticulturists for the country at large. It is, in the first place, composed mostly of picked men, sent as delegates by all the horticultural and agricultural societies over the whole country. They are men of the widest and most thorough experience in the respective districts to which they belong. They bring with them the ripest knowledge, gathered in the field, orchards, and gardens, of their respective states. They exhibit specimens of the products of our widely diversi-

fied soil and climate, to show what each state can produce, both naturally, and by the aid of high culture, and a more beautiful and interesting display, it is not easy to find in any country.

But the interest of the thing does not—as in most horticultural societies—the common schools of horticulture—stop here. In fact, it just commences where those of the societies end. It commences by the discussion—free to all interested in such topics—of the various subjects within the scope of the congress, such as the culture of fruits generally, the comparative merits of different varieties in various parts of the whole Union, the unanimous or partial approval of some varieties—the unanimous or partial condemnation of others; interspersed with lively descriptions of various modes of cultivating, and different degrees of success or failure, all which have the deepest interest for every man who owns a patch of ground which he either cultivates, or hopes to cultivate. When we add to this, that most of the speeches are made by men who are really the yeomanry of the country, who, though they deal in few flowers of rhetoric, illustrate their strong positions by "showing their hands" with good fruits in them, as the best proof of what they and mother earth can do; men whose opinions may lastingly damn or establish the character of a pear, but who, at least, never "pair off," (like their namesakes in the capitol,) to avoid giving their honest opinions.

Judging from the previous sessions of the Pomological Congress, we have no fear of want of either interest or numbers at Philadelphia. All that we fear is, that the members will come with plenty of ideas—but ideas badly arranged and digested. As it is true that the great majority of delegates sent there, are men who are full of experience, and precisely that experience which it is desirable to get out of them for the good of the public, it is no less true, according to our observation, that they are not men in the habit of condensing their thoughts, or so arranging their ideas, as to present their experience in the shortest and clearest manner. This is all from the want of the habit of turning the subject over in their own minds, and so putting it in order, that they can most clearly impart their knowledge and experience to others. It is also true, that many whose duty it is to report to the Congress on the condition of the fruit culture of their own district, neglect to prepare or arrange any materials till the very week of the meeting, or perhaps till the very day when it takes place. Hence, much of the general value of the comparative results are lost to the assembled body, because they cannot be digested and prepared by the chairman till the meeting is over. We state these facts now, for the purpose of urging them upon the attention of the chairmen in the different states, and begging them to make memoranda and collect materials for their reports from this moment—that of the ripening of the earliest cherry to the time of the meeting itself.

Now that the fruit growing of the country is no longer a pleasant pastime merely—but produces many *millions* of profit to the country at large, it is worth while for the leading cultivators to remember that their biennial Congress, which, as we have said, is our horticultural university is about to assemble *this season*, and every one interested is expected to do his duty in the furtherance of all the interests which it seeks to advance.

Domestic Notices.

An English National School House.—[See Frontispiece.] Our engraving of this month, shows one of the National School Houses at Tamon, lately erected at the cost of about £1,000. It is interesting chiefly as a study of the quiet domestic character which the English give to this species of building. One can easily believe that something of home affections and love for good order and neatness, would naturally grow up in the mind of every pupil educated in such a school.

The first thing that strikes an American eye is the "very humble" appearance of the building, arising from the lowness of the walls. But this is, internally, amply made up by the great height of the roof—the whole space being open, and the under side of the timbers and woodwork of the roof being exposed to view. This gives a lofty and spacious appearance to the interior, and an abundant supply of fresh air—connected, as the space is, with every means for ventilation.

This style of building will hardly be followed exactly in this country, but there are many details, and some hints in composition about this domestic style, that are well worthy of study by those designing, or about erecting buildings of this class.

Fuchsias.—The skill of the gardener in producing new varieties, is nowhere more delightfully shown than in the new Fuchsias of the last three or four seasons. The utmost delicacy and brilliancy of color, the finest foliage and habit of growth, and the most exquisite gracefulness and perfection of form in the flowers, are united in the new Fuchsias—which we notice in our advertising columns of last month, several of our leading growers now offer at very moderate prices. It is unfortunate for the Fuchsia, as a popular flower, that it will not bear our bright sun, and dry air, and hence is of no value as an out-of-door plant. But to all who have greenhouses, it is an invaluable treasure, during all the summer months, when those said greenhouses were formerly the most shabby of all places; for the stages now covered with Fuchsias, (which being dormant during winter, may be kept in a warm pit,) the house is, indeed, more attractive from June to September, than even in winter.

A great deal has been written about the culture of the Fuchsia, but it may be simplified within a very brief compass; for soil, take two-thirds leaf mould from the woods, one-third fine sand; for atmosphere, syringe the plants every way plentifully, for they love dampness, and dull the lights with a thin wash of whiting, or something equivalent, to guard against excessive sun-light. We know an amateur who grows them very successfully in a small house covered with cheap muslin frames—the whole structure, 30 feet long, not costing as many dollars—and preserving the plants in a pit in winter. Fuchsias demand some care certainly, but there are few plants that so well reward amateurs, as these lovely specimens of *nature's jewelry*.

Vines for Verandas.—A question very often asked, is, what are the best vines for verandas? Some of those usually employed for this purpose, are, though beautiful in themselves, very objectionable on account of insects. The common sweet scented honeysuckle is an example of this kind. Among hardy plants that are woody, and therefore permanent, there are few more satisfactory than the *Prairie Roses*. Their remarkable vigor, their habit of retaining the freshness of their foliage all the season, and and the wealth of beautiful flowers they bear during this month, united to their perfect hardiness and adaptation to almost every soil, renders them deservedly great favorites. Among the best of them are the following: *Linnean Hill Beauty*, light rosy blush; *Triumphant*, lively red; *Baltimore Belle*, white; *Queen of the Prairies, rosy red;* all very double and profuse bloomers. These prairie roses grow with such great luxuriance, that they will, in rich soil, entirely cover the columns of a veranda, or piazza, the second season. A friend of ours renders them much more ornamental than usual by budding Madam Duprez, Mrs. Bosanquet, Aimee Vibert, and other free growing, everblooming roses upon the long shoots, thus forc-

ing the climbers to put on, partially, the dress of the Bourbon roses, and flower more or less all the season.

Among the hardy *clean* woody permanent climbers—there are none more beautiful than the Chinese Wistaria—with its superb masses of fresh gray or lilac flowers in May. The yellow trumpet Honeysuckle—with blossoms the most delicate straw color, all the season, is not half so often seen as it deserves; the Chinese Honeysuckle, with deliciously scented particolored blossoms and sub-evergreen foliage, is particularly well suited to verandas with a northern aspect; the Dutchman's Pipe, with a magnificently large dark green foliage, is perfectly hardy, and the most picturesque of climbers, for situations where a bold effect is desired.

These are the best of the permanent *woody* vines for verandas. For those who have bare columns at this season, and wish to cover them at once, we recommend the following *Summer climbers*—to last only the season, and which will grow from 8 to 15 feet high and flower profusely. *Cobea scandens*—very rapid grower, large purplish bell shaped flowers. *Maurandias*—pink, purple, and white, three sorts all exceedingly pretty, growing 10 feet high. *Lophospermums*—pink, or pale purple, two sorts, 15 feet high. *Solanum jasminoides*—delicate white flowers, blooms very freely, 12 feet. *Ipomea Learii*—a rich blue convolvulus, 20 feet high. *Pergularia odoratissima*—profusion of fragrant white flowers, 15 feet high. These can be had in pots at most of the Florists, and it is not yet too late to turn them out for the summer—especially if the soil is made light and rich. Among the prettiest *annual* vines, are the Canary bird flower (*Tropeolum canariense,*) and the Cypress vine.

Quinces love Salt.—The quince tree seems to have a constitutional fondness for salt. We have never seen such superb specimens of this fruit, and such a general luxuriance of the trees, as at Newport, R. I.—on the sea coast. A gentleman who noticed this fact, several years ago, told us lately that he had profited by the hint, in giving to each of his trees a top-dressing of two quarts of coarse salt every spring. By scattering the salt over the surface it dissolves slowly, and does no harm whatever to the roots, but makes both foliage and fruit much more healthy.

Burnt Bones for the Pear Tree.—We can bear testimony to the value of the bone-black of sugar refineries as a special manure for the pear tree. A peck mixed in the soil of a hole three feet in diameter, in which the tree is planted, gives great depth of verdure, and augments both the size and flavor of the fruit. It is probable that the new native phosphate now found in New-Jersey and Lake Champlain, will be eagerly sought after by pear cultivators as being the food of pears—*par excellence.*

Notes from Lake Ontario.—Many persons in your city, or farther seaward, suppose the region of the great Lake Ontario, one, if not inhospitable in soil, very severe in its climate, because it verges toward Canada. But it is quite otherwise. Often, while Utica and Rochester, and even Albany, are under the incubus of intense cold, or severe frosts, the lake shore here is in the enjoyment of comparatively moderate weather. This spring has been cold, and vegetation is backward: but within a few days the weather has been delightfully tempered with warm sunshine, and genial spring showers.

Oswego is situated directly on the lake shore, divided by a rapid river. The city itself, slopes on each side to the river, and furnishes innumerable positions where the most picturesque sites for dwellings or gardens are found. Shade trees abound, the city ordinances requiring them to be placed along the streets, by the owners of the contiguous property. Horticulture receives much attention—and some of the private grounds here are celebrated for good taste in arrangement, and for the delicious fruits, and exquisite flowers they produce. The ladies of this city devote themselves with much zeal, to matters of rural embellishment, and many of them are largely in advance of the other sex in their devotion to pomology, and the beauties of the floral kingdom. The soil and climate are admirably adapted for most kinds of delicious fruits, especially pears, plums, cherries, and peaches. Oswego is the paradise of roses. Nearly every variety is cultivated here. In no place, Philadelphia excepted, have I ever seen such gorgeous and attractive horticultural exhibitions. It may gratify you to know that the entire fruit crop in this region promises a rich har-

vest, the trees now beginning to show their blossoms in profusion.

A lady friend, who is eminent here for her good taste, and varied knowledge, on the subject of horticulture, has two favorite pear trees in her garden, which yielded delicous fruit last year, which have no perceptible bark for two or three feet from the ground—nothing but the naked wood presenting itself to the eye or the knife. Can you inform her what gives vitality to the tree, or how the sap circulates? [See Lindley's Horticulture. Ed.]

How can a hard-pan hill, which slides badly in wet weather, be covered with verdure? A friend has a noble stone residence on the high bluff of the lake, and the bank slides and makes an unsightly and rough aspect in front of his elegant mansion? Is there anything that will vegetate there, and keep the surface fresh, and from sliding? [Plant it thickly with young Buckthorns. Ed.] W. A. *Oswego, May* 14.

Cracked Pears.—On the premises of Mr. S. Wilhelm in Easton, Pa., I saw an old pear tree; it was the Early Madeleine, the first branches of which were about 20 feet or more from the ground, and at a distance of about 15 feet from this tree, stood a young White Doyenne, about 9 or 10 years old, full of *cracked* fruit. A scion from this tree was set on a small branch of the old pear tree, being on the north side and perfectly shaded by the branches and foliage immediately above it.

This scion, which had grown there four or five years, was laden with the most perfect fruit, which ripened about six weeks later than that of the young tree, wherefrom the scion was taken. B. *Nazareth, Pa.*

The last Winter.—The long cold, worst winter that "the oldest inhabitant" ever knew has at last passed away, and spring, smiling and gay, with warm sunshines, genial showers, the rich song of birds, has come to gladden the hearts of all animate creation.

"Winter is passed and gone." It *was* a long winter and a *cold* one. November, often noted for its fine sunny days, was cold and frosty. Winter early threw her snowy mantle over the earth. December came with greater strength of cold, and January was the perfection of frostiness. For many successive nights the mercury shrunk below zero, nor did midday tend to draw it far from its hiding place. "The thaw," considered so necessary an accompaniment of the month, came, but the chilly north wind soon blighted its noblest efforts. February too, the shortest month of all the year, but lengthened now, that timid damsels might have time to choose before they woed, was more renowned for its length, from its even, unmitigated coldness. The lowest the mercury fell with us was 10° below zero, while in common winters from 17° to 20° below is nothing new, at least for a few mornings.

Fruit trees and fruit buds have suffered but slightly from the effects of the winter. The cherry is in full and vigorous bloom. The peach, plum, pear, and apple promise well.

Delicate wooded plants come out fair, with less injury than usual. May it not, from the results of last winter, be fairly inferred, that a fluctuating temperature is more fatal to plants than an even one, though it be long continued cold. W. Bacon. *Richmond, Mass., May,* 1852.

Dr. Valk's Native Grape.—A reference to page 444 of the Horticulturist for October last, will remind your readers that I had something to say about the grape. My remarks amounted to this—that I had raised in 1845, several seedlings, *a cross between the Black Hamburgh and the Isabella,* and that at the time I wrote you, these had "borne the frosts of four winters." I sent you a bunch of the fruit, (it was not a good sample,) of which you remarked, "the *bunch* resembles that of the Isabella—the grapes being hung somewhat loosely upon it. But the berries are round, blacker than the Isabella, and totally distinct in flavor from our native grapes—resembling the dark colored foreign grapes." Your notice, as far as it went, was flattering, and soon brought me numerous applications for "vines or cuttings," but I had neither to dispose of at any price.

In the November number, page 516, Mr. Chorlton, of Staten Island, informed you of the interest he felt in reading of my success, and remarked, that "too much praise cannot be given to that gentleman, (myself,) for his enterprising experiment, but it appears to me that he has gone the wrong way to work." By which Mr. Chorlton meant to say, that I *should*

have fertilized with the pollen of the Hamburgh, and *not* with that of the Isabella. The *inference* no one can mistake. My seedlings partaking so much more "the constitution and habit of the mother," are not as likely to prove vigorous and hardy as they would have been with the *Isabella* on the maternal side. "Physiological theory teaches" well, but "practical experience proves" *her* sometimes to be in the wrong. The question to be tested is—are the seedlings of my raising, and of which I gave you some account in September last, as *hardy* as the Isabella vine? Putting aside all physiological theory, I appeal to the past *severe* winter for an answer. *This test*, in addition to the four previous seasons of cold, has *tried* my vines to *my* entire satisfaction, and it has demonstrated that their constitution *is* "as hardy, if not more so, than the Isabella." They need no eulogy from me beyond a declaration of the fact, that they have not received the *least injury* from their entire exposure to an unusual degree of frost. Mr. CHORLTON may, by going the *right* way to work, far exceed my efforts in experimenting, and he may rest assured of my best wishes for his success, but until something *better* is announced, I hold my seedlings to be superior to every other grape grown in the open air in any part of the U. States. In all the essential qualities of a first rate table grape, it is I venture to say without a rival, and, notwithstanding the misfortune of having gone to work the "wrong way," it will be yet some time before its equal will appear. This may be saying a great deal, and I may be thought partial to my *new* grape, but as I am no speculator in humbugs, and don't particularly care to cater *a la Barnum* to the follies and cheats of the prevailing mania in almost everything, I can leave my grape to the ordeal of its own merits, and the test of time. Nothing would have been easier than to have propagated a considerable stock *for sale*, but I have so far destroyed all the cuttings, and resisted very many exquisite hints, about giving or selling a single eye. If living and able to do so, I intend exhibiting the fruit in Boston this coming fall; then, its *taste* can be commented on, and a comparison instituted with the Diana and some others that I have read of. I shall thus "give *proof* of its excellence," though not so sure of "startling the country with the intelligence of my having ten, twenty, or a hundred thousand plants" to sell. I aim at establishing the reputation of my grape on some better evidence than the usual form of horticultural charlatanism. When I have done so, (if I ever do,) I shall then take into consideration the benefits I may justly claim as the result of my effort to improve a valuable and delicious fruit. Respectfully yours, WM. W. VALK, M. D. *Flushing, L. I., May* 5, 1852.

[FOR THE HORTICULTURIST.]

The Gardener's Mission.

BY REV. JAMES RICHARDSON, JR.

Oh! tell us not, that Paradise
Bloomed in the distant past,
Ere Culture o'er the darkened world
Her radiant light had cast!

Oh! talk not of a Golden Age
In centuries dim and old,
Before creative Art begun
Her wonders to unfold!

No! Paradise is yet to come!
And in the future years,
With unimagined glories crowned,
The Golden Age appears.

The heaven-taught gardener's wondrous skill
Shall wreath the Earth with flowers,
While new and luscious fruits shall grow
Throughout her Eden bowers.

The world was but a wilderness,
'Till Art's celestial birth
Spread culture, like a robe of light,
O'er all the joyful Earth.

Wild grasses waved their scanty store
Over the untilled plain,
That now, with life and bounty filled,
Bend down their ripened grain.

The wild-wood briar waited long
For love, that should disclose,
By Art's sweet power, from meagre buds
The full and blushing rose.

Sour grew the rough and stinted crab
Within the thorn tree's shade,
Where now, amid the glancing leaves,
Through Culture's magic aid—

Swells forth the Apple's glowing cheek,
With juices rich and rare,
And hangs, with melting nectar filled,
The tempting golden Pear.

And, in the Future's brightening years,
Progression's law divine,
Unfolding still, with still new charms,
Shall make the landscape shine.

So that the day shall never dawn,
In which still fairer flowers
And fruits more luscious shall not come,
To bless this world of ours.

Then rosy Hope, with heaven-eyed Faith,
Shall cheer our labors wise,
Till this once rough dark wilderness
Shall change to Paradise.

Dedham, Mass., May, 1852.

YELLOW ROSES.—You will oblige one of your constant readers, by giving in the next number

of the Horticulturist, a description of the Persian yellow rose, and stating what are the points of difference between that and the yellow Harrison. A rose was sent me more than a year since, by the name of Persian yellow, that is vastly inferior both in shape and fullness to a yellow Harrison, that I have had for some years. Last fall I made the place where it was set, extremely rich with stable manure, and the bush has grown luxuriantly, but there is very little improvement in the blossom since last year. The color, so far as I see, is just the same with the yellow Harrison. I want to know whether there is but little difference between the two roses, or whether I have been cheated in my purchase. M. A. *Chapel Hill, N. C., May,* '52.

The Persian yellow rose is very distinct from the Harrison yellow. The former is a *cupped*, double rose, beautifully formed, and a third larger than the latter. The Harrison rose is semi-double and expands so as to be nearly flat when full blown. The Harrison has an upright, and Persian yellow a spreading, rather drooping habit. The Persian yellow is a very beautiful free flowering variety, of a pure deep chrome yellow. From your description of your plant, you have read the Harrison instead of the Persian yellow. Ed.

Analysis of the Strawberry.—In the last number of the Horticulturist, I see an analysis of the strawberry, by myself, in which there is an error of importance, the correction of which I wish you to publish. It is this. It reads Perphosphate of Lime—where it should read Lime. The same error has been published in several papers, and an error even more material, has been made (in publishing my analysis of the sweet potatoe,) by some of the papers. They have Phosphate of Lime, of Magnesia, of Potash, where they should have only Lime, Magnesia, Potash. I suppose that in the first place I may have caused the error, in the manner in which I made out my statement of these analyses, by placing the words Lime, Magnesia, Potash, under the words Phosphate of Iron. They inferred that Phosphate of Lime, Magnesia and Potash was meant, and so substituted the word Phosphate. Respectfully. Billius Kirtland. *Poland, O. May* 13, 1852.

Wheat and Chess.—There has been a controversy as to the fact of wheat turning to cheat or chess, which as far as I am informed is yet undecided.

It has come under the observation of several farmers, that wheat that has been pastured late is more apt to have a larger proportion of cheat amongst it than that which has not been pastured. This circumstance has suggested the idea that, where the *main* stalk of wheat has been destroyed, that the *side shoots* produce a grain differing from the parent grain. In proof of this I would instance the cabbage: where the head has been removed, the sprouts from the stalks produce a seed, which will not again produce cabbage—but still retaining much of the nature of cabbage. I do not know whether the attention of those writers on the subject has been turned to this fact, but it appears to me to be a strong case in point. Very respectfully, A Subscriber. *Lexington, Ky., May* 1, 1852.

Pears on Quince Stocks.—In a late discussion on fruits, which took place at the agricultural meeting at the State House in Boston, Col. Wilder made some interesting remarks on this subject which we reprint:

Much attention has been given of late years to the cultivation of the pear on the quince stock, and in relation to which I have been requested to give the results of my experience. As a general rule, no tree will succeed for any great length of time where it is grafted on any other than its own species. There are, however, exceptions to this rule, and among them, some varieties of the pear, which grow vigorously, bear abundantly, and which seem to be even better adapted to the quince, than to their own root.

An impression has extensively prevailed unfavorable to the cultivation of the pear on the quince. This has arisen principally from an improper selection of kinds, or from injudicious cultivation. There are, however, three considerations which are absolutely necessary to success, viz., a deep, rich soil,—the planting of the quince stock entirely below the surface of the ground,—and a systematic and scientific course of pruning, as the tree progresses in growth.

Objections to this species of cultivation have been made from the belief that the quince was a short-lived tree, and that the crop must necessarily be small from what are termed dwarf trees. Such, however, has not been my experience. On the contrary, I have pear trees on the quince root which are twenty-five years old, and which produce annually a barrel or more of fruit each, and for aught that I can see, they are destined to survive as long as any that I

possess on the pear root. These may, and probably have in some instances, thrown out roots from the pear stock, but whether this be so, or not, instances are not rare where such trees have attained in France the age of more than a hundred years, and we know of a quince tree in Massachusetts which is 40 years old, and which has produced 10 bushels of fruit in a season.

The pear, when grown on the quince, should always be trained in the pyramidal form. These may be planted in much closer order than when grown as standards. We have known them to succeed well where grown at the distance of 6 feet apart in the rows and 12 feet between the rows. In this way Mr. Rivers, the great English cultivator, planted 2500 Louise Bonne de Jerseys and 1500 Glout Morceaus for the London market. We consider 12 feet apart, each way, a liberal distance. This would give 302 trees to the acre, and we are clearly of the opinion, that soil and selection of varieties being right, no crop whatever would be more profitable. Such a plantation, with proper care would yield, in the fifth year, from 75 to 100 bushels of fine fruit. As to profit, this will not appear as an exaggeration, when it is known that Glout Morceau pears, a variety which succeeds admirably on the quince, have sold during the winter readily at one to two dollars per dozen, in our market.

We name as varieties which succeed well on the quince the following, and to which might be added many more:

Louise Bonne de Jersey.	Belle et Bonne.
Vicar of Winkfield.	Beurre d'Anjou.
Duchess d'Angouleme.	Beurre Diel.
Glout Morceau.	Easter Beurre.
Passe Colmar.	Beurre d'Amaulis.
Urbaniste.	

GLOVER'S MODELS OF FRUITS.—Mr. Townend Glover, of Fishkill Landing, N. Y., has lately exhibited, at the Horticultural Hall, in this city, a collection of his model fruits. These models, produced by a process of which Mr. Glover is the inventor, are exact representations. They are also imperishable—as much so as marble itself. They are, therefore, highly valuable in furnishing correct ideas of the various kinds of fruits, being in this respect much superior to drawings or paintings. The collection he has here exhibited, embraces about 1500 specimens, comprising the most esteemed varieties of apples, pears, plums, cherries, strawberries, gooseberries, &c. They have received the highest encomiums from the most distinguished connoisseurs in horticulture, and we are glad to learn that an extensive collection has been ordered by the Massachusetts Horticultural Society. No better means can be devised by such associations for promoting the objects they have in view. The New-York State Agricultural Society has procured a cabinet of fruit models, and also a cabinet comprising the most common of the insects injurious to fruits, of which Mr. Glover produces exact imitations showing them in their various stages, together with parts of the fruit, wood, or foliage on which they are to be found. So perfectly accurate are these artificial insects, that the distinguished entomologist, Dr. Goadby, when looking at the collection at Albany, asked whether they were real insects, or imitations. The deception in regard to the fruit is so complete, that children have frequently brought them to their teeth before discovering their mistake. We are pleased that Mr. Glover's labors in this business are beginning to be appreciated, and trust that he will receive the reward which his ingenuity, and the benefits of his discovery, so justly merit.—*Boston Cultivator.*

CULTURE OF TOMATOES.—I wish to say a few words about growing tomatoes, which I think would be worth publishing, if it has not appeared before this from some other source. We hear people talk about planting tomatoes in sandy ground, that is not very rich, for the reason that they run all to vines and produce no fruit. Now my plan is to plant the seed in good rich ground, and allow them to grow until they have made *two, three, or four* shoots from the stalk—after which, prune all the side shoots that come out, and follow this plan all through the season, every three or four days, and let the vines grow the full length, never pinching off the ends. In this way I can raise earlier and better tomatoes than by any other plan, and also a great many more of them. It is necessary to stake the vines up to keep them off the ground, and they will then grow from seven to nine feet long, with large bunches of tomatoes at the ends of the vines. Some of my neighbors have tried this plan and pronounce it far superior to every other. J. W. CLUTE. *Schenectady, April 22, 1852.*

TO KEEP BUGS FROM VINES.—I have tried ashes, plaster, lime, road dust and tobacco juice, with some success, but a spoiled clam, the cleanings of a wool carding machine, or a lock of wool soaked in fresh oil, placed near the root of the vine, I never knew fail—these also promote the growth of the vine. The bugs are attracted by the smell of the vine, but do not like tainted fish. PHINEAS PRATT. *Deep River, Ct.*

DESTROYING MILDEW.—MARSHALL P. WILDER, in a communication to the Journal of Agriculture, speaking of mildew on grapes, greenhouse plants, and elsewhere, says, "We have for more than fifteen years used sulphur for this purpose, and in no instance has it failed to effect a speedy cure. We have known instances where mildew, in the space of a few days, would spread its sporules over a large rose-house, destroying nearly all the foliage of the plants, and this, by the use of sulphur spread on the walks and over the plants, was extirpated in a short period."

Answers to Correspondents.

GRAFTING.—*B.* (Rushville, O.) All the varieties of horse chestnut may either be grafted or budded on the Ohio Buckeye. The Spruce of your forests is not a very good stock for working other evergreens upon. The retail price of the Landscape Gardening is $3.00, of the Cottage Residences $2.00.

SUMMER TREATMENT OF GREEN-HOUSE PLANTS.—*A Lover of Flowers.* In order to get a fine bloom from your plants in winter, you should not allow them to run into rank growth in summer. Do not plunge the pots in the borders, but choose a half shaded spot on the north side of a hedge, paling fence, or low building; the ground firm, and lay three inches of hard coal ashes over it. On this place the pots with room enough for each plant on every side. If the plants are pinched for room, you may shift them into larger pots before hand. Prune the heads of all into good shape, except such plants as have already set their flower buds for next winter, as the Camellia. If the pots are half sunk in coal ashes, (keeping 2 inches of it under them,) it will keep them all the cooler. Water regularly every evening, and in the morning, when the weather is hot and dry. The roots will not run through in the coal ashes, as they do in the soil, and if you give the plants proper attention to watering, you will find they are in excellent flowering condition in autumn, not having exhausted themselves by creeping through the pots, and having their best roots broken at the lifting season. Before they go into the house in autumn, the roots should be examined—those that want fresh potting should have it, and the others must have the surface of the soil renewed. The greatest error that all novices make in cultivating green-house plants, is in putting them in improper soil. The best and safest compost for all plants, where you are your own gardener, is two-thirds leaf mould, (entirely decayed leaves, to be found in the woods,) and one-third fine sand. Anything will grow in this, and a great many things will not grow without it.

NAMES OF FRUITS.—*A New-York Subscriber.* Colmar d'Aremberg, and Beurre d'Aremberg, are two very distinct fruits. The serrated leaved Early York, is one of the finest early peaches, higher flavored than the other variety with glanded leaves.

BEDDING PLANTS.—*A. P.* (Trenton, N. J.) You make your beds too rich for the Scarlet Geraniums, and therefore they run to leaf. They want the full sunshine, and a light, deep soil, not rich. Hydrangeas make a splendid bed, and may be kept there all winter by covering them with tan, and then turning a box over the tan to keep it dry. The White Salvia patens is for sale by all the leading florists.

INSECTS ON THE VINE.—*Dr. Bute,* (Nazareth, Pa.) The gray insect you describe is the vine-hopper. Provide yourself with one of Brown's Patent Fumigators, (to be had at Buist's, Seedsman, Philadelphia,) and pass a stream of tobacco smoke under the foliage of every vine in your vinery—afterwards filling the house with smoke, and shutting it up all night. If the day is damp, the application will be more effectual; two or three operations of this kind will rid you of this pest. The cause of the rot on the hardy vines is not fully known. It is possibly a fungus—the seeds of which float in the air. In a vineyard of an acre which we have, we have found that carefully picking out all the diseased berries, as fast as the rot makes its appearance, entirely puts a stop to it here, but it might not where it is very prevalent.

ROSE SLUGS.—*Eliza,* (Brooklyn, N. Y.) A decoction of tobacco, about the color of weak black tea, thrown on the under side of the leaves of your roses, will destroy the slugs. Repeat it twice, just at sunset, and you will get rid of them—otherwise they entirely devour the leaves, leaving only the skeleton.

Notices of Societies.

American Pomological Congress.

In compliance with a resolution passed by the American Pomological Congress, during its session at Cincinnati, in October, 1850, it becomes my duty publicly to announce that the next session will be held at the city of Philadelphia, on *Monday, the 13th day of September,* 1852. The Congress will assemble at 10 o'clock, A. M., in the Chinese Museum Building, South Ninth-street, below Chestnut.

The Pomological, Horticultural, and Agricultural Societies throughout the United States and Canada, are invited to send such number of delegates as they may deem expedient. And the delegates are requested to bring with them specimens of the Fruits of their respective districts.

Packages, and Boxes of Fruit for the Congress, may be directed to the care of THOMAS P. JAMES, Esq., No. 212 Market-street, Philadelphia, should the owners be unable to give their personal attendance.

The various State Fruit Committees enumerated in the subjoined list, will, on or before the day of meeting, transmit their several reports to A. J. DOWNING, Esq., New-

burgh, general Chairman of the whole. The Chairman of each State Committee is authorised, where vacancies occur, to fill up the number of his Committee to five members.

W. D. BRINKLE, M. D., President.

Philadelphia, May 1, 1852.

LIST OF STATE FRUIT COMMITTEES.

Massachusetts, Robert Manning, Salem.
Vermont, C. Goodrich, Burlington.
Maine, Henry Little, Bangor.
Connecticut, V. M. Dow, New-Haven.
New-York, B. Hodge, Buffalo.
A. Saul, Newburgh.
New-Jersey, Thomas Hancock, Burlington.
Pennsylvania, Thomas P. James, Philadelphia.
Ohio, A. McIntosh, Clevelnnd.
Prof. J. P. Kirtland, Cleveland.
Dr. John A. Warder, Cincinnati.
Dr. S. A. Barker, McConnelsville.
Rev. C. Springer, Meadow Farm.
Kentucky, Lawrence Young, Louisville.
H. P. Byram, Louisville.
Mason Brown, Frankfort.
H. F. Duncan, Lexington.
P. Blanchard, Maysville.
Virginia, Yardley Taylor, London.
Delaware, Edward Tatnall, jun., Wilmington
South Carolina, J. G. Drayton, Charleston.
William Summer, Pomaria.
Georgia, Dr. Camak, Athens.
Dr. Ward, Athens.
Johnson J. Harris, Milledgeville.
D. Green, Macon.
Richard Peters, Atalanta.
Louisiana, James Evans, New-Orleans.
Tennessee, L. P. Yandell.
Mississippi, M. W. Phillips, Edwards.
Missouri, Thomas Allen, St. Louis.
James Sigerson.
E. Abbott.
Indiana, James Blake, Indianapolis.
J. Bell, New-Albany.
—— Scott, Madison.
Illinois, Dr. J. A. Kennicott, Northfield.
Prof. J. B. Turner, Jacksonville.
S. Francis.
Edson Harkness.
C. R. Overman.
Michigan, J. C. Holmes, Detroit.
W. H. Scott, Adrian.
A. T. Prouty, Kalamazoo.
Wisconsin, F. R. Phœnix, Delavan.
Iowa, Henry Avery, Burlington.
Canada West, James Dougal, Amherstburgh.
District of Columbia, Joshua Pierce, Washington.
New-Hampshire, J. Hill, Concord.

Pennsylvania Horticultural Society.

The stated meeting of this association was held in the Chinese Saloon, Philadelphia, on Tuesday evening, May 18, 1852. E. W. Keyser, V. P., in the chair. The display was excellent. The tables through their entire length were loaded with beautiful plants, some fruits, and remarkably well grown forced vegetables. The collection of plants from Dr. Jas. Rush's green-houses, was truly fine, consisting of very large Orange Trees, Acacias, Azaleas, Fuchsias, Cinerarias, etc. The table from John Lambert's contained beautiful Pelargoniums, Roses, Cinerarias, and other plants. The collection from Caleb Cope's houses was handsome, and embraced a number of choice Pelargoniums, Fuchsias, Cacti, and a variety of others. From Robert Buist's were, as on former occasions, many new plants, and shown for the first time, of which were Hibbertia Cunninghamii, Zieria trifoliata, Hoya Cunninghamii, Eutaxia pungens, Epacris Copelandii, and E. lævigata—also, Azaleas, Spireas, Lichenalias, Ericas, a collection of Tulips, several seedling Lilacs and a seedling Horse chestnut. By Benjamin Gullis were fine Roses, Pelargoniums, Cinerarias, fine Verbenas, etc. By Robert Cornelius' gardener, very beautiful Roses. By Gerhard Schmitz, seedling Tulips, choice specimens, well broken and of much merit. By J. J. Jennings, many choice Tulips. Wm. Hobson exhibited a new and undescribed Boraginaceous plant in flower, from California. The Bouquets came from C. Cope's grounds and Joseph S. Lovering's, and Baskets of indigenous flowers were shown by Thos. Meehan and Robert Kilvington.

The fruit exhibited was from C. Cope's forcing houses, and consisted of a dish of fine Hovey's Seedling Strawberries, another of Black Alicant grapes, a few ripe cherries, and a vine filled with Black Hamburgh Grapes.

The exhibition of vegetables did much credit to the contributors. The collection of forced specimens from Thos. Meghran, gardener to Joseph S. Lovering, was a superb display, comprising some 40 to 50 heads of the finest Cauliflowers ever shown before the Society—three varieties of Cucumbers, two kinds of Lettuce, five of Radishes, string Beans, early York Cabbage, etc. William Hobson exhibited very large Rhubarb of his Seedling and Victoria varieties. Henry Cooper and Samuel Cooper, superior Rhubarb, and James M. Page large and fine asparagus. On motion adjourned. Thos. P. James, Rec. Secretary.

National Agricultural Convention.

Whereas the Massachusetts Board of Agriculture, at its meeting held in Boston, January 14, 1852, requested its President to enter into correspondence with the Presidents of State and other Agricultural Associations on the expediency of calling a NATIONAL AGRICULTURAL CONVENTION:—and whereas the Pennsylvania State Agricultural Society, at its meeting at Harrisburgh on the 20th of the same month; and the Maryland State Agricultural Society, at its meeting in Baltimore, on the 4th of February, adopted similar resolutions, and recommended the formation of a National Agricultural Society;—and whereas the New-York, Ohio and other State Societies, through their Presidents or by published Resolves, have expressed similar views in relation to the necessity of a closer bond of union between all such institutions throughout our country:

Therefore, the undersigned, believing from these indications that the time has arrived for a confederation of local Agricultural Societies in the United States, and in conformity with a Resolution of the Pennsylvania Society, authorizing the Presidents of the three first named Associations to designate time and place,—do hereby invite Delegations to meet in Convention in the city of Washington, on the 24th day of June next, at 10 o'clock, A. M.

The objects of this Convention are to organize a NATIONAL AGRICULTURAL SOCIETY, to which the various Agricultural Societies may be auxiliary; to consult together upon the general good, and to establish, by this Society, or such other means as the Convention may devise, a more cordial and widely extended intercourse between agriculturists in our own country and in other lands, to create additional facilities for the acquisition and diffusion of knowledge, by books, journals, seeds and other objects of interest to the American farmer and gardener; and to act on such other matters pertaining to the advancement of agriculture as the wisdom of the Convention may judge appropriate.

For these purposes the undersigned earnestly solicit delegations from the various State, or other organizations, for the promotion of agriculture in the several States and Territories; and where such organizations do not exist, delegations from such districts, consisting in all cases of such number of persons as may be deemed expedient to appoint.

As it has been considered desirable to name an earlier day for this Convention than was at first expected, this circular is issued before the concurrence of the several State Agricultural Societies could be obtained. Their respective Presidents are therefore requested to add their names to this call, and to give immediate publicity to the same through the papers and periodicals of the day.

A large and general attendance is confidently anticipated.

Societies will please transmit at an early date a list of the delegates they have appointed, to DANIEL LEE, M. D., Agricultural Department, Patent Office, Washington.

The above call is signed by Marshall P. Wilder, Prest. Mass. Board of Agr.—Frederick Watts, Prest. Penn. S. Ag. Soc.—Chas. B. Calvert, Md. do.—Henry Wager, N. Y. do.—Thomas Stocks, South. Cen. Ag. Soc.—Arthur Watts, Ohio S. B. of Ag.—James Tallmadge, Am. In., N. Y.—John C. Gray, Mass. Soc. Prom. Ag.—Joseph A. Wright, Ind. S. Ag. Soc.—Geo. A. Nesmith, N. H. do.—Frederick Holbrook, Vt. do.—Josiah Chapin, R. I. Soc. for the Encouragement of Domestic Industry.

Genesee Valley Hort. Society, Rochester.

This Society held its first exhibition on the 11th of May. It consisted principally, of plants from green-houses and nurseries, the season being too backward for many other productions. Hyacinths of unusual size and beauty were shown, showing that culture is only necessary to perfect this early and beautiful flower.

ELLWANGER & BARRY exhibited fine specimens of Rhododendron Catawbiensi, Cinerarias, (including some fine seedlings,) Azaleas, Trœpeolum tricolorum grandiflorum, six varieties Crown Imperials, thirty varieties Hyacinths, &c. &c.

CHARLES A. RYAN, Rochester and Charlotte Plankroad Nurseries, exhibited large specimens of Spirea prumifolia flore pleno, Petunia Prince of Wales, &c. Extra fine Roses, La Reine, Madam Bosanquet, Pæstolus, Grandiflora, Hermosa, &c. Verbenas, Reine d'Jour, Defiance, Anacreon, &c. Cinerarias, Beauty of Newington, Cerulea perfecta, &c., and a large collection of Hyacinths, Narcissus, and Crown Imperials.

His Spirea prumiflora was in beautiful flower, and is perfectly hardy in our climate—and his Petunias were very large in blossom, and perfect.

Verbenas he had of different sorts, growing in rude boxes, and their brilliant colors were well blended.

JOHN DONNELAN, of Hanford's Landing, exhibited the finest Petunias—the largest and most splendid flowers ever shown here of that kind. Large White, Bianca, Baron Prevost, Enchantress; as also 10 varieties of Verbenas, with Roses, Pelargoniums and Carnations, besides two beautiful hand bouquets, of choice flowers, made up by Mrs. Robert Donnelan.

A. FROST & Co., exhibited fine specimens of Japonica Cryptomeria, and standard Roses.

JOHN DONNELAN exhibited well grown Palestine Lettuce, Rose and Yellow Turnip Radishes, and a new variety lately from China, besides Giant Rhubarb, tender and long, and Asparagus.

C. F. CROSSMAN exhibted Victoria Rhubarb, Asparagus, Early short and long Green Cucumbers, and Cabbage Head Lettuce.

Mr. C. F. VAN DOORN, (artist,) exhibited a collection of fruits painted in oil, giving faithful pictures of the Northern Spy, Red Canada, and Baldwin Apples. They were much admired.

Specimens in perfect keeping, were shown of the Northern Spy Apple, by J. H. WATTS, which vied *strongly* in fragrance with the flowers in the Hall.

Exhibitions are to held frequently, and that for Roses takes place 19th June.

Under the auspices of the recently elected President, Mr. P. BARRY, the Society will prove an important auxiliary in increasing the interest already taken in the production of Flowers and Fruits. J. H. WATTS. *Rochester, May* 13, 1852.

The officers of this Society for the present year are as follows. P. Parry, of Rochester, President. Matthew G. Warner, of Rochester, John J. Thomas, of Macedon, Henry P. Norton, of Brockport, R. G. Pardee, of Palmyra, and John Donnelan, of Greece, Vice-Presidents. Leander Wetherel of Rochester, Corresponding Secretary. Joseph A. Eastman, of Rochester, Recording Secretary. James H. Watts, of Rochester, Treasurer.

Hartford County Hort. Society.

The annual meeting of the Hartford County Horticultural Society, was held on the 3d inst., and the following officers were chosen for the ensuing year, Alred Smith Esq., the President, declining a re-election:

President—Wm. W. Turner.
Vice-Presidents—Henry Mygatt, John S. Butler, M. D.
Rec. Secretary—Gurdon W. Russell.
Cor. Secretary—Thomas R. Dutton.
Treasurer—Erastus Smith.
Auditor—H. L. Bidwell.

Standing Committee—W. W. Turner, Dr. H. A. Grant, P. D. Stillman, Joseph Winship, George Beach, jr., Dr. J. S. Comstock. Dr. Gurdon W. Russell, J. H. Goodwin, H. W. Terry, E. A. Whitney, H. L. Bidwell, Charless L. Porter, Henry Affleck, Wm. G Comstock, Francis Gillette, N. W. Stanley, Daniel S. Dewey.

It was voted to continue the weekly exhibitions on Saturday, which have been very well attended, and arrangements are in contemplation for a show of green house plants in May, and for a large exhibition of fruits and flowers in September.

New-York Horticultural Society.

Semi-annual exhibition, to be held at Metropolitan Hall, Broadway, on Wednesday, Thursday, and Friday, June 9th, 10th, and 11th, 1852.

Regulations.—The exhibition will open to the public at 1 o'clock, P. M. All articles for competition must be brought in by half past 10. Those arriving after this hour, will be received for exhibition only.

Competitors must hand a list of their articles to the Recording Secretary. Where this rule is not complied with, premiums will be withheld. Articles should in all cases, if possible, be properly named.

Articles which are entered for competition *in mass* will not be allowed to compete *separately* at the same exhibition; neither will the same article be allowed to compete in more than one class.

No article will be allowed to be removed from the room before the close of the exhibition, without the permission of the Committee.

Where premiums are offered for named varieties, the varieties must be dissimilar.

Seedling Plants must be the growth of the person presenting them, and should, if possible, be exhibited on their original stocks. No Seedling can be put in competition a second time for the Seedling prize.

All plants must have been in possession of the exhibiter at least one month.

The exhibiter's name will not be allowed on any article until after the Judges have rendered their decision.

The Committee will remove all ordinary specimens from the table.

All articles not removed by 12 o'clock of the day after the exhibition, will be considered at the disposal of the Committee.

Dishes and Glasses will be furnished by the Society where required.

The Medals of the Society will probably be ready in June, and will be given instead of money premiums of equivalent value, when desired.

It will greatly promote the objects of the Society, if the Fruits, Flowers and Vegetables are accompanied by brief observations on the peculiar mode of cultivation, together with any other remarks of utility.

Montreal Horticultural Society.

President—Hugh Allen, Esq.
Vice-Presidents—Hon. Justice Day, Hon. Justice McCord, Hon. A. N. Morin, M. P. P., Rev. Mr. Villeneuve.
Treasurer—John Frothingham.
Secretary—William Brown, of Cote de Niege Nurseries, Montreal.
Directors—Rt. Rev. Dr. Fulford, Mr. Sheriff Boston, S. T. Lyman, J. J. Day, Jno. Torrance, E. Muir, Jas Ferrier, Jr., Geo. Shepherd, Richard Sprigings, J. E. Guilbault, Charles Hugal, James Cooper, Geo. Garth.

Rome Horticulural Society.

The following are the officers of the Rome Horticultural Society, recently elected:

President—Alvah Mudge.
Vice-President—Elon Comstock.
Secretary—C. P. Grosvenor.
Treasuner—J. A. Dudley.
Trustees—J. Stryker, Hervey Brayton, Jay Hathaway, Benjamin Leonard, Edward Huntington.

Horticultural Society of Pittsburgh.

The following gentleman are elected officers of this Society for the ensuing year: John Chislett, President; John Murdock, Jr., Vice-President; A. Hersperger, Treasurer; Henry Woods, Secretary; A. Campbell, A. B. McQuewan, James Windkop, John Lowen, C. L. Goehring, Chas. Lockhart, T. J. Bingham, James Murdock James McKnin, W. H. Williams, W. P. Marshall, and S. N. Wickersham, Executive Committee.

Kiosques or Summer Houses.